

THE NORTH DAKOTA FARMER

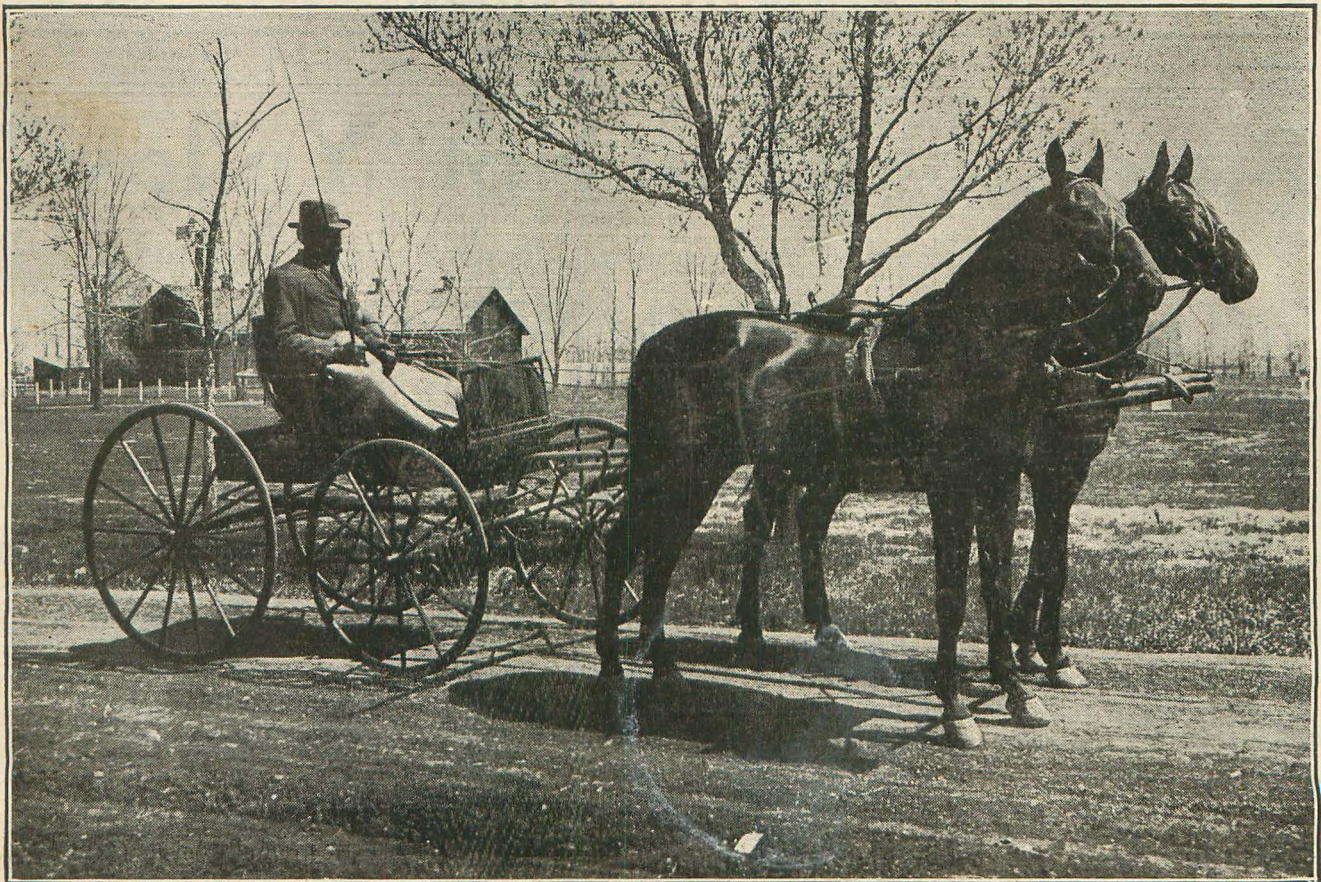


"THE NORTH DAKOTA FARMER FOR NORTH DAKOTA FARMERS"

Vol. 13 · No. 7

Lisbon, North Dakota, January 15, 1912

50 Cents A Year



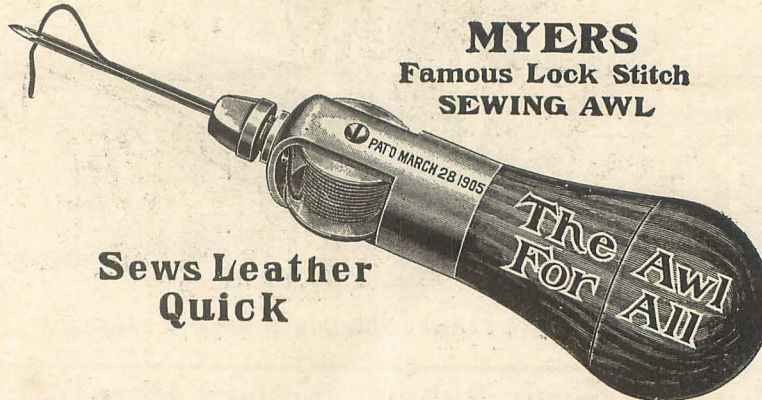
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THE NORTH DAKOTA FARMER

Vol. 13, No. 7

LISBON N. D., JANUARY 15, 1912

50 Cents a Year

Tri-State Grain Growers' Convention

President Worst's Address; Conditions as He Sees Them in 1920

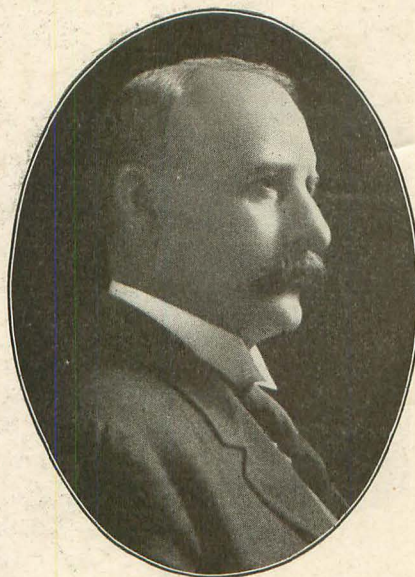
Today, January 17, 1920, I greet with pleasure the farmers and delegates assembled at this the twenty-first annual Tri-State Grain and Stock Growers' convention.

What a contrast this magnificent auditorium presents, with its seating capacity of 5,000 and every seat filled, when compared with the old opera-house we met in eight years ago! What spacious wings, filled with agricultural products of these states—products that cannot be duplicated by any other section of the country, and everything so convenient! Instead of rustling around as formerly to find suitable rooms, oftentimes widely separated as was the case in 1912 in order to accommodate the poultry show and corn exhibit, we now have this magnificent structure, combining under one roof a multitude of people and a mid-winter carnival that fancy could not picture in the earlier history of the Tri-State association. For these evidences of public spirit, we owe thanks to the progressive and enterprising citizens of Fargo.

We review tonight, with pleasure, the material and educational achievements of the past ten years. North Dakota has happily and with commendable unanimity revised and re-directed her educational system. The educational association and all the higher institutions of learning united in establishing a system of popular education for the children—a system that makes for industrial efficiency as well as for intellectual training. Instead of educating the country children away from rural activities and other industrial pursuits, the public schools have materially changed their viewpoint. Vocational subjects are now given due prominence. This sal-

utary change had its inception with the introduction of elementary agriculture in the rural schools in 1911 and the establishment of five subsidized agricultural high schools in 1912.

At this date, 1920, agriculture, domestic science and manual training are regularly taught by specially trained instructors in every village and city high



school. As a result, the number of pupils completing high school courses of study, in proportion to the population, has nearly doubled. Boys now quite generally are insistent upon completing at least a high school course of study, many of them, especially those attending high school from the adjacent country, electing the course in agriculture.

The Rural Schools

The rural schools, now quite gener-

ally consolidated, have made even greater progress. The course of study adopted for these country schools, embraces subjects directly related to country life and embodies much that is calculated to inspire enthusiasm for the open country, ideals. Even the language and sentiments of the text books have been materially countrified. Animals, plants, soils, insects, and birds have displaced the lingo of the counting room and much other matter that was foreign to the children's comprehension or experience. Best of all is the plan, now quite generally adopted, for the organization and maintenance of the rural schools. In the first place, the school grounds are larger, but few of them less than ten acres in extent.

The school buildings in the consolidated districts are mostly three or four-room houses with additional work shops and laboratories. The basements are specially fitted up for manual training and shop work. Girls have departments where sewing and cooking are taught. Coffee and tea are served for the noonday luncheon. A special laboratory is provided for elementary agriculture where instruction is given and where specimens of grains, grasses, weeds, etc., are stored for exhibit and demonstration.

In addition to the regular class rooms, each schoolhouse is provided with an assembly room where the district agricultural club meets fortnightly to discuss subjects that are of general interest to a farming community. Here also is maintained a lecture course during each winter, the faculties of the agricultural college, the university and the normal schools contributing chiefly to these entertainments. The children also organize literary societies and occasionally give a public entertainment. In short, the consolidated school has become the social center for the community, where meetings of every character are held whether for amusement or for the discussion of business or civic questions. They now enjoy at these social centers wholesome amusements, with less inconvenience and greater edification for themselves and for their children, than the cheap and garish attractions the towns formerly provided for them.

The School Principal

Under this arrangement, it has been found possible to make rural teaching a profession. Country principals are paid \$100 per month and upwards, together with the proceeds of the demonstration plots, and the gardens which are maintained on all school grounds and which the children take great delight in cultivating, under the direction of the principal. They do this for recreation as well as for instruction.

The more progressive among the consolidated schools have provided a cottage for the principal teacher; also a cow, several pigs, and some chickens. This, at least, enables the principal to engage in the teaching profession for life and many have settled themselves thus in permanent homes on the school grounds.

It is quite generally conceded now, that the influence of at least one man in every school, has a salutary effect upon the character of the boys. They mingle together in the class room, in the fields and gardens, and among the domestic animals, and the school itself becomes a part of life instead of preparation for something indefinite. Moreover, the principal, being the graduate of a course in agriculture, has proved invaluable as a local adviser and statistician for the community. The school and the families of the district are thus brought into sympathy and close mutual relationship with each other, a condition that did not formerly exist.

The initial expense for establishing these consolidated schools seemed burdensome at first, and considerable opposition was manifested on that account, but for the sake of the future usefulness and contentment of the children, the work of consolidation was accomplished. Those who stood out for the children and their welfare, as against mere expense, won the day and now everybody is pleased.

The country would as soon go back on the recall of public officials, as to return to the one-room school house for the training of their children or to the village for their social entertainments.

Farming communities have decided once and for all time that their children are more precious than their dollars—dollars that are now so easily made since they are pursuing better farming methods. They have decided that the children of the rural districts shall have the best and most practical training that a good school can afford, instead of the three R's and a few frills that savored of city ideals. And inasmuch as the farmers' taxes mainly support all the state institutions, as well as the state government, and since farmers have finally decided to take a strong hand in the management of public affairs, they have wisely decided,

among the first improvements, to see that the rural districts, where the wealth is created, shall come into their own, in matters educational.

Compulsory Attendance

The legislative assembly, at its last session, repealed the law requiring compulsory attendance; it having become entirely obsolete. All the children now are eager to attend school since they see and understand that the subjects they may study and the work they are permitted to do, while in school, are exactly what they will have to think about and do all thru life. Previously, they had to take everything on faith and, in consequence, many had to be driven to school; but

now, since their vocational interests have been given consideration and their social needs taken into account, they cannot be kept away from school. Hence, to blot out the evidence of mistaken, but well meaning theorists, the old feudal laws requiring compulsory attendance were repealed.

Now the child goes to school. Formerly only the child's head went to school. Now the children are taught to do things as well as to study marks and characters in books. Now the school points to life and things that live; then it pointed toward an intangible goal which less than one per cent could ever hope to reach.

Corn Menu Given at the Tri-State Corn Banquet

Cream of Corn Soup	Corn Croutons	Corn Chowder
Parched Corn	Corn Bread	Maryland Corn Pone
Corn Relish		Boston Brown Bread
Corn Fed Pork	Brown Gravy	Corn Salad
Mashed Potatoes		Corn Wafers
Corn Fattened Turkey	Corn Dressing	Indian Pudding
Escalloped Corn		Kornletts
Saute Hominy		Corn Wrinkles
Cream Corn		Sweet Juice of Corn
		Cobs and the Weed



EXTENSION DEPARTMENT

W. C. Palmer, Agricultural Editor

L. R. Waldron, Supt. of the Dickinson Sub-station, gives the following instructions for starting alfalfa:

"The ground selected should be well manured, plowed well and planted to corn or potatoes. This corn or potato crop should be kept very clean during the period of growth. I wish to emphasize this point in keeping the land clean. The extra labor in doing this will pay for itself many times over, the following season when the alfalfa is to be grown.

In the early spring of the year following, the corn stubble or potato land should be disced. Later on the soil should be worked occasionally until late in May.

This working of the soil serves two purposes. The main thing is to kill off the young weeds which will germinate during April and May. While cultivation helped a great deal in keeping the previous cultivated crop in a clean condition, yet one invariably finds plenty of weeds coming up the next spring. We find it quite important to keep the new alfalfa crop as free from weeds as possible, as the young alfalfa plants are not good weed fighters."

TOO MUCH WORK

"Too much work" is a remark that meets one on nearly every farm. The writer has often heard the same remark at Farmers' Institutes. And especially when new methods are advocated. It is a real serious problem. However, it must be faced and solved too. As long as the land was new spreading over a large number of acres was in many cases profitable.

That time has now passed as the results in half farming now too often result in crop failure or so many wild oats and weeds in the grain that it makes a man ashamed to take them to market. Half farming with such results simply wastes work. Some better method must be worked out.

What to Be Done

What is the man to do who has more land than he can work thoroly? One solution is to sell a part of it. That, however, is not what most land holders want to do. Another solution is to sow a part of the land to alfalfa, clover or some grass as timothy, bromus or slender wheat grass. The returns from the land in hay will be fully as good as from that in grain. And the work will be much less. At the same time the land will be cleaned from weeds and plant diseases and the humus content will be increased. In the Red River Valley medium red clover and timothy is a good mixture to sow. While out of the Valley alfalfa, bromus or slender wheat grass will prove more satisfactory.

The starting of the clover and alfalfa may need some special preparation, as manuring and sowing without a nurse crop, and introducing some of the germs that live on the nodules. Get a small piece started and that will help you get the whole farm in condition.

Leave it in grass 3 to 5 years. Every year sow more grass and also plow up some sod. This new land will be in fine condition to grow large crops.

By this procedure the work on the farm will be reduced and the returns increased, and the land put in much better shape than is possible in continuous grain growing. The work that is saved on the hay land should be used to give the land more thorough tillage.

Do not delay some grasses, as the longer the land is cropped to grain, the harder it is going to be to get the grasses to start.

PREPARE TO GROW ALFALFA

Here and there all over North Dakota on the experimental and demonstration farms, and on the farms of private individuals profitable crops of alfalfa have been produced from year to year. It has now been definitely proved that alfalfa is hardy enough to withstand our winters and that it will yield from one to four tons of hay per acre each season.

Many others have tried alfalfa and failed. What are the principal reasons why alfalfa fails? 1st: Poor seed, which may be deficient in germinating power, or it is from some southern land such as California or Algeria and lacks hardiness. 2nd: Lack of the proper soil inoculation. Alfalfa to succeed must have a certain species of bacteria to form nodules on its roots. If bacteria are not introduced artificially into the soil alfalfa is very liable to be a failure. 3rd: Improper soil. A soil that is deficient in lime belongs to this class of soils, which sometimes is the cause of alfalfa failure. A soil that is so low that water stands upon it and is congealed into ice in the spring is not adapted to alfalfa and such conditions are always fatal to alfalfa. If the permanent water table is within three feet of the soil surface alfalfa will generally be a failure, as it is a deep rooting plant. 4th: Weeds, the chief cause of alfalfa failure in the first place. The worst weed of this type is foxtail, or pigeon grass. This comes up and grows very rapidly the first summer and chokes out the young alfalfa. 5th: Cutting at the wrong time. Whenever alfalfa is cut before the crowns form it is being greatly injured, if not killed. Alfalfa should never be cut until the next

crop is budding or starting from the crown. The third crop, if cut, leaves no winter protection to the crown, consequently, the alfalfa is induced to start too early in the spring and it is then greatly injured by late freezes. Pasturing is a form of cutting that is very injurious to alfalfa, except hog pasturing, and even hogs should not be allowed to pasture it at all closely.

Essentials of Successful Alfalfa Culture

The first essential is the selection of a well drained, sweet rich soil. Alfalfa, though a soil enricher, revels in a rich soil, a soil that is never under water at any season of the year, a soil that should produce a heavy crop of corn or wheat is the ideal soil for alfalfa, whether sandy, loam, a heavy clay. The subsoil should be free from layers of hardpan or layers of gravel.

The second essential is the proper preparation of the soil. It should be coated with manure at the rate of ten to fifteen loads per acre. This should be plowed under to a depth of eight or nine inches. The next spring corn should be planted in check rows and the corn should be so well cultivated and hoed that a single weed will not go to seed. If this is done the greatest enemy of young alfalfa, pigeon grass, will be eliminated, as its seeds will not live over a year in a well cultivated soil. After the corn crop is removed, cultivate the soil with the disc, set to run lightly. Under no circumstance plow it, because you would make the soil too loose and you would probably bring up deeply buried weed seeds.

The third essential is good viable seed of a hardy variety such as the Grimm, Turkestan or Montana. This seed should have been grown in either North or South Dakota or Montana. Seed this seed on the field prepared as described above at the rate of ten pounds per acre without a nurse crop.

Inoculate your field before seeding or at seeding time by applying soil from an old alfalfa field and harrowing the same into the soil immediately, as sunlight is fatal to the bacteria. Or screen the soil and apply by mixing with the alfalfa seed and seeding the whole thru the ordinary drill.

If your land has been properly prepared weeds will not bother the first year to any extent, the alfalfa will be twenty inches high and in blossom in August. Under no circumstances cut or pasture this first crop, let it go into winter to protect the roots. If the land was not properly prepared and weeds should seriously bother the first year, do not clip them until the buds have begun to form at the crown of the alfalfa plant, then clip as high as possible and yet check the weeds; remember, clipping is very liable to injure the alfalfa more than the weeds.

If you have never grown alfalfa in North Dakota, try a square rod next spring on your best garden soil, inoculate this little

spot with soil obtained from the experiment station or from an alfalfa field in your neighborhood in order to have a source of inoculated soil on your own farm. This fall is the time to lay off five acres to seed to alfalfa in 1913. Manure it well this fall, plow it deep, this fall. Grow a weedless crop of corn on it next year, inoculate and seed it properly in 1913, and thru the succeeding years this five acre field should produce from ten to twenty tons of alfalfa hay which would be the equivalent of twenty to forty tons of timothy in feeding value for all kinds of livestock.

Alfalfa is a peculiar plant and most North Dakota farmers have much to learn about it. Begin with a square rod in your garden next year, study its nature, and its needs, plan to put in five acres in 1913 and plan to put in larger fields in the succeeding years until you have at least 20% of your land in this very valuable soil enriching legume, which is capable of furnishing you the cheapest and most valuable hay of any cultivated plant known to man.

RAILROADS AND FARMING

Why are the railroads interested in better farming? The products of the farm are the measure of their business. There are now two families in town to each one on the farm. The process had been thus: The hired men who ran the cradle are now in town making binders. Those men who helped in the different operations of the farm are now in town making implements to do their work, or making things as shoes, clothing, furniture or selling groceries—leaving them yet virtually the farmer's hired hands tho often thousands of miles away. The railroad is the go-between the farmer and these hired hands. They take the produce of the farm to the towns where these workers have congregated and bring the products of their toil to the farmers. This makes it plain that the more the farmers produce the more the railroads will have to haul, both from the farm to the city and from the city to the farm.

For the railroad, the encouragement of better farming may often be a better and a cheaper way to increase business than increasing the mileage. When the future is considered it is the safest way of insuring a stable business.

THE FARMER'S INTERESTS

The farmer is interested in manufacturing, railroading, merchandising, banking; yes, and dependent on them. The farmer must have the labor saving machinery, *which has in a large degree made him independent.* The securing of sufficient men to do the work in the old way is now al-

most impossible and it would be vastly more expensive than the present system with improved machinery. The labor-saving machinery, or to put it differently, letting the farm hand go to town and manufacture binders for instance, rather than to stay on the farm and swing the scythe had made the railroad necessary, in order to transport the products from farm and from manufacturer to the consumer.

It would be a big task for the farmer to secure the almost numberless things that he uses and needs. The merchant collects these and places them at points of convenient access to the farmer. A very useful service.

The farmer needs the bank. It facilitates his financial affairs. In fact it enables the farmer to carry on his affairs in a much more business-like way than would otherwise be possible.

It is evident that farming, manufacturing, railroading, merchandising and banking are all an outgrowth of farming. A specializing of the work at one time all done on the farm. They are each necessary to and a complement of the other. The farm, however, remains the most important tho it has had less brains bestowed on it than have the other big lines of industry, the side lines of farming so to speak. These are now making efforts to put more brains into farming. The manufacturers send out experts to teach different things, as soils, machinery and its care. The railroads send out agricultural experts to teach soils, crops, rotation of crops, soil tillage, etc. They also send out better farming grains. The bankers and merchants are strong supporters of farmers' institutes, in this way bringing personal instruction to the farmers. The bankers are also taking a very active interest in education.

In a high civilization like ours no one line of industry can be allowed to get behind, as that puts a drag on all. The farmer is interested in and needs the manufacturer, the railroader, the merchant, and the banker, and they need the farmer. All together they make for our splendid civilization.

"FIVE PROFITS" CROPS

Corn, Alfalfa and Clover are "five profit" crops. In other words they will give five profits when wheat gives one. And wheat cannot give that one unless helped out by corn, alfalfa or clover.

The Five Profits are: 1. The Crop. 2. Preparation of the land for a crop of grain and the assurance of a crop of grain. 3. The milk, butter, beef, eggs, pork or horse power that these crops can be manufactured into. 4. The manure. 5. Distributing the income and work.

1. The crop of corn, alfalfa or clover will bring as much profit as the crop of grain. They are much more sure of

making a crop. This makes them more profitable than the grain crops.

2. Preparation of the Land. These crops prepare the land for a crop of grain. The cultivation given the corn saves moisture, kills weeds and plant diseases, leaving the land in condition to double the profit from the grain crop. It takes twelve to thirteen bushels of wheat to pay for raising the crop. When a twelve bushel crop just pays for its raising, a fourteen bushel crop leaves two bushels for profit. A sixteen bushel crop leaves four bushels for profit or twice as much as the 14 bushel crop. An 18 bushel crop will leave three times as much profit and so on. That is not all that the preparation will do. It also goes a long way toward insuring a crop of grain in case the season should be unfavorable. Alfalfa and clover enrich the soil in humus and nitrogen, things a soil must have to be fertile. They also kill weeds and plant diseases. Corn, alfalfa and clover do the greatest good when they are grown in rotation with the grain crops. The crop will help the alfalfa, clover and grain and these in turn will help the corn and grain.

3. Milk, Butter, Beef, Eggs, Pork or Horse Power. Whichever of these the corn, alfalfa or clover is manufactured into, a profit results, and usually a good one—a profit that is the most independent of the seasons and of any other industry on the farm. The labor required in this manufacturing process is usually work that would not otherwise be utilized during the greater part of the year. Most business cannot succeed if its plant is lying idle most of the year with labor unemployed. The grain farmer has his equipment and labor idle more than half the year. This could be employed in manufacturing as above outlined in a most profitable way.

4. Manure. When corn, alfalfa, clover and other food products are fed to stock they return four-fifths of its plant food in the manure. This has a money value that is greater than the profit from the average crop of wheat. The time spent in handling manure will return more profit than that spent in growing wheat without manure or rotation.

5. Distributes Income and Work. This means that there is money coming in at all times of the year. This makes it possible to buy for cash instead of being trusted till threshing time, which some years does not come. Buying for cash insures lower prices than buying on time. It also makes for economy. It is easier to get things when having them charged than when paying cash. When on the book the farmer is under obligations to the merchant; he is no longer the independent farmer. The corn, alfalfa and clover distributes the work over a longer season making it possible to secure cheaper and more efficient help. The good laborer wants steady

work. These two advantages mean another profit.

Does Wheat Give One Profit? Some years it does and other years it just lies down—gives up—leaves the farmer with a great big loss that it will take several wheat profits to make up for. Wheat does not pay the mortgage—it usually makes it. Corn, alfalfa, clover, cows and hogs pay the mortgage. They also brace up wheat so that it does not give up so easily in the face of an unfavorable season.

Corn is King and Alfalfa Queen, while wheat is a subject lacking nerve. When all goes well it flourishes. When things are unfavorable it lies down—corn and alfalfa plug along making a crop. They are “five profits” crops and without them wheat becomes a “no profit” crop.

Note. In North Dakota clover will do well in the Red River Valley—not so well out of it. Alfalfa will do well in all parts of the state. It is much more drought resistant than clover.

MY WEEK'S TRIP TO FARGO

Harold Wiltze

In the spring of 1911 prizes were offered in many counties of North Dakota for corn and potatoes raising, and sewing and bread making; and in some counties there were prizes for other things.

The contest was open to those under eighteen and they had to compete with the others of their county.

In the fall when the prizes were awarded there were five boys and four girls from Ransom county that could go Fargo, expenses paid, and I was one of the lucky number, winning first on potatoes. Several others received prizes of two or three dollars each.

When notice was sent out telling that we were to go to Fargo the week before Christmas and Mr. Crocker, who is called “Uncle Will”, would accompany us we

could hardly wait until the Monday before Christmas when we were to start.

When the time came to go we were all at the depot with as many friends as if we were going on a long journey.

We got on the train and were comfortably seated when one girl discovered that she had left her hand-bag in the buggy, but it was too late to get it, for the train started, so her brother who was also going lent her some money until hers came later.

On the train we met several winners from other counties, and by the time we got to Fargo there were quite a number of us.

When we got off of the train we were taken to a restaurant for supper. After supper the girls were taken on a street car to the dormitory of the A. C., but the boys stayed at the Viking Hotel, taking meals at the dormitory, and going out by street car at seven o'clock, and returning after supper, our fare always being paid by Uncle Will, unless we took a car at a different time.

Professor Randlet took charge of the boys, and some of the ladies tended to the girls, instructing them in sewing and baking, and if not that they were sure to have a good time some other way.

Every forenoon the boys were instructed by the College Professors, who gave lectures and demonstrations in agriculture, stock raising, carpentry, blacksmithing, machinery, and electricity, and I think we were specially interested in Professor Shepard who showed us about livestock judging and told us the history and disposition of the horse.

There was one lecture that was given every forenoon, the last of all. It consisted of one word, but was most effective. That word was “Dinner!”

Every one rushed to the dormitory and awaited the bell. Then we went into the dining room and stood by our chairs until all were at their places, when a bell was

rung that sounded like a cow bell. Every one then sat down and ate. The movement of the hundred and six boys and girls together with the students made a great noise as they sat down.

After dinner many pleasures awaited us. I don't know how the girls were entertained but I guess they had a good time.

Some of the boys went to the armory, where they played indoor base ball with a stuffed ball or played basket ball. Some visited the buildings of the A. C. and some went up town, where they could look about the city or go to the Y. M. C. A., where there is an athletic room, a race track, a pool table, a tennis table and a heated swimming tank.

Time seemed in a great hurry and the time to go home came very quickly.

On Saturday morning instead of going to the A. C. for breakfast we took it at the hotel and then went to the depot, where we met the girls and the children from the other counties on the line.

We were soon seated in a car and going home, and tho we did not look so trim as when we came, we were certainly happy; and I am sure we will all try to win a trip next year, together with anyone who learns what a good time we had.

A GREAT TREE FOR THE PRAIRIE FARMER

Europeans are getting tons of Banksian pine seed from Minnesota for forest planting. They have discovered the value of this hardy quick-growing and useful pine, and are eager for it.

Americans have not yet waked up to its value altho a nursery has been started near Aitkin, Minn. to grow this species exclusively, and make ready for the rush when it comes. Grown under the embankment system this tree promises great things for the prairie farmer.

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The Largest Foundry Machine Shop and Boiler Shop in the Northwest. A large stock of Structural Steel and Iron always on hand. Full Line of Blacksmith Tools for Farm use. The Biggest plant in the Biggest Little City in the world. Nothing too large or too small for us to tackle in Power, Building, or Machinery. Best Tools and Skilled Workmen is the secret of our success. While in our city call and see us and judge for Yourself.

End of North Bridge, N. P. Ave.

HOME DRESSMAKING



No. 4103—Ladies' Jacket. Single-breasted and having two-seam sleeves; and large collar in square or rounded outline. Sizes 32, 34, 36, 38, 40 and 42 inches bust measure. Price, 15 cents.

No. 4104—Ladies' Six-Gored Skirt in regulation length. Having high waistline, applied front and back gores hanging free (which may be omitted) and perforated for shorter length. Closing to the left of center back. Width around lower edge about two and one-fourth yards. Sizes 22, 24, 26, 28 and 30 inches waist measure. Price, 15 cents.

Entire costume in medium size requires 7 yards 44 inch material.

No. 4110—Ladies' Jacket. Having sailor

collar and two-seam sleeves. Sizes 32, 24, 36, 38 40 and 42 inches bust measure. Price, 15 cents.

No. 4047—Ladies' Four Piece Skirt with high waistline, having an inverted plait at center front and center back at flounce depth giving pantaloons effect. In regulation or shorter length and closing in back. Length in front from regular waistline 42, back, 45 inches; perforated for 40 inches front, 43 inches back. Width around lower edge about 3 yards. Sizes, 22, 24, 26, 28 and 30 inches waist measure. Price, 15 cents.

Entire costume in medium size requires five and one-fourth yards 54 inch material. Braiding design No. 11558. Perforated pattern, 20 cents.

No. 3812—Ladies' Jacket. Three-quarter

fitted and perforated for shorter length. Having two-seam sleeves. Sizes, 32 34, 36, 38,

No. 3812—Ladies' Jacket. Three-quarter fitted and perforated for shorter length. Having two-seam sleeves. Sizes 32, 34, 36, 38, 40, 42 and 44 inches bust measure. Price, 15 cents.

No. 3965—Ladies' Six-Gored Skirt. Side gores lengthened by a flounce in two sections. Closing to the left of center-back. Width around lower edge about two and seven eighths yards. Sizes 22, 24, 26, 28 and 30 inches waist measure. Price, 15 cents.

Entire costume in medium size requires four and five-eighths yards 54 inch material.

SYNOPSIS OF REPORT OF SECRETARY OF AGRICULTURE

(Continued)

Economic Results of Cold Storage

Feeling that there should be more knowledge of the cold storage of foods, the Secretary caused the first investigation of the economic features of cold storage to be made during this year. Information was obtained on schedules filled out by warehousemen. It may not be generally understood that cold-storage warehousemen who do a public business rent space to the owners of commodities; in private warehouses, such as are owned and used by the meat packers, the commodities stored are owned by the proprietors. Many of the warehousemen made their reports after weeks of laborious efforts, and with very few exceptions their disposition was to make reports and to give publicity to the receipts, month by month, of quantities of foods received into cold storage and the quantities of deliveries to owners month by month. The investigation covers fresh beef, fresh mutton, fresh pork, dressed poultry, butter, eggs, and fish.

Besides obtaining reports from warehousemen, experts in the Bureau of Statistics exhausted the resources of the libraries of Washington in collecting wholesale price quotations of these commodities in cities thruout the United States. The first quoted price of each month was taken as far back as October, 1880.

This investigation discovered the time during which these commodities are kept in cold storage. Warehousemen were requested not to include in their reports commodities whose owners intended to keep them in cold storage only a few days and to make no report for a warehouse doing only a temporary accommodation business. No reports also were to be made for fresh meats in coolers, nor was the time passed in coolers to be added to the time in cold storage proper.

The two years covered by the investigation began with March, 1909, for dressed poultry, eggs, and fish; with May, 1909, for fresh beef, mutton, pork, and butter.

The principal months when fresh beef is placed in cold storage are September, October, and November; mutton, August, September, and October; butter, June, July, and August, and sometimes May; eggs, April, May, and June. Pork is quite well distributed thruout the year. Poultry is made up of diverse elements; broilers go into storage early in the spring and roasters in the early autumn; November, December, and January, and sometimes October are the heaviest storage months. With regard to fish there seems to be no regularity in the heavy cold-storage months; most of the fish is received fresh and is frozen, and after the lapse of some time is sent to ware-

houses at places of consumption, where it is stored again. These two periods of storage are combined in this investigation.

During the three heavier cold-storage months of 1910-11, 47 per cent of the fresh beef placed in cold storage during the whole year was received into the warehouse; 59.8 per cent of the fresh mutton, 59.2 per cent of the dressed poultry, 70 per cent of the butter, and 79.4 per cent of the eggs.

It is established by this investigation that 71.2 per cent of the fresh beef received into cold storage in the year 1909-10 was delivered within three months; 28.8 per cent of the fresh mutton, 95.2 per cent of the fresh pork, 75.7 per cent of the poultry, 40.2 per cent of the butter, 14.3 per cent of the eggs, and 35.5 per cent of the fish.

The percentage of receipts delivered in seven months is 99 for fresh beef, 99.3 per cent for fresh mutton, 99.9 per cent for fresh pork, 96.1 per cent for poultry, 88.4 per cent for butter, 75.8 per cent for eggs, and 64.9 per cent for fish.

"The important observation to be made," declares the Secretary, "is that the receipts into cold storage are entirely or very nearly exhausted by the deliveries out of cold storage within 10 months."

The fresh beef received into cold storage during the year beginning with May, 1909, was kept there on the average for 2.3 months; the fresh mutton, 4.4 months; the fresh pork, .9 of a month; and the butter, 4.4 months. The poultry received during the year beginning with March, 1909, was kept on the average 2.4 months; the eggs, 5.9 months; and the fish, 6.7 months.

The costs of cold storage are running against the prices of stored commodities month by month. The owners must use good judgment and take their goods out of storage before the costs of storage, added to the original cost of the goods and perhaps some profit, will raise the total amount of cost above the market price. It is a problem of the future.

The warehouseman has a rate of charge for space for each commodity, in some cases for storing for the season, and in others by the month. Another cost of storage is interest, which is not always a theoretical cost, and a third cost is insurance.

If these three costs are combined they amount to .437 of 1 cent per pound of fresh beef per month, or 3.5 per cent of the mean wholesale price of beef during the heavy cold-storage months of 1910; for fresh mutton the costs are .352 of 1 cent per pound, or 3.8 per cent of the mean wholesale price; for poultry, the price is .446 of 1 cent per pound, or 2.8 per cent of the mean wholesale price of the largest class of poultry; for butter, .571 of 1 cent per pound, or 2.4 per cent of the mean wholesale price; for eggs the costs amount

to .593 of 1 cent per dozen, or 3 per cent of the mean wholesale price.

It is evident that as the time of storage lengthens, the costs and their percentage of the wholesale price must be multiplied by the number of months. If the storage is for 15 months, for instance, the cost per pound ranges from 5.273 cents for fresh mutton to 8.572 cents for butter, and is 8.898 cents per dozen for eggs; the costs for 15 months range from 36.5 per cent of the wholesale price in the case of

Gophers Are Now Planning To Rob You Again —Stop Them Quick



ANTON MICKELSON
President

Right now, Mr. Farmer, the gophers, squirrels, pocket gophers, field mice, prairie dogs and other pests are having a gay old time six to ten feet under ground on the grain they stole from you last summer. You can't see them.

but they are having the time of their life eating your grain—the grain that you should be selling now. And not only that, but they are planning to rob you again this summer. What steps are you going to take to prevent them? It's time you faced this question squarely. Gophers cost too much for you to keep them.

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if you use Mickelson's Kill-Em-Quick—the only guaranteed gopher poison. A 75c box of Kill-Em-Quick will kill every gopher on 80 acres, and that means 2,000 gophers at least. A \$1.25 box will kill 4,000 gophers. A \$1.25 box of Kill-Em-Quick will save you at least \$400 cash money in extra crops.

KILL-EM-QUICK GOPHER POISON

has the most peculiar and attractive odor and taste that gophers ever came across. They leave grain and tender shoots for Kill-Em-Quick and a single poisoned grain kills them. They don't even have time to think about it.

WRITE ME A POSTAL

Let me tell you some remarkable facts about gophers and Mickelson's Kill-Em-Quick. I want to show you an easy way to save \$200 on every 80 acres. Gophers are constantly throwing up non-productive soil, which eventually is bound to seriously effect the productive powers of your land. I want to tell you how to prevent this. Write me a postal or a letter. In the meantime get a 75c package of Kill-Em-Quick from your druggist. If your druggist doesn't sell Kill-Em-Quick, send me his name with your order and I will supply you direct, express prepaid.

Anton Mickelson, Pres., Mickelson Kill-Em-Quick Co.
1429 Washington Ave., North, Minneapolis, Minn.



butter to 57.5 per cent in the case of fresh mutton.

The costs of storage for the average length of time during which these commodities are in cold storage are 7.9 per cent of the wholesale price for fresh beef; 17.1 per cent for fresh mutton; 3.2 per cent for fresh pork; 6.8 per cent for poultry; 10.8 per cent for butter; and 18 per cent for eggs. Approximately, the wholesale prices of the commodities mentioned are increased by cold storage to the extent of the percentages just given.

Cold storage has interposed to change considerably the relative monthly consumption to make it more even thruout the year. It has also changed the relative monthly prices thruout the year. These two facts have raised the price level of the commodities covered by this investigation, for a reason apart from the costs of storage. In two ways, then, cold storage has raised the cost of living. The prices that were compiled indicate a tendency toward uniformity of prices thruout the year, after cold storage became a large business, for butter, eggs, fresh mutton, and poultry; but a tendency away from uniformity of price for fresh beef and fresh pork. These conclusions are substantiated by two methods of treating the price compilations.

This cold-storage investigation supports a belief that there has been much speculation in some years by the men who keep these commodities in cold storage. One illustration is given: The egg year 1910-11 had 29 per cent more eggs in cold storage than the preceding year, and yet the price index number went much higher than usual in the months when it is high—October to January—and much lower in the months when it is low—March to July following.

At a time when there was plenty of eggs in storage, the wholesale price of eggs soared to 43 cents in Boston in November and December and to 45 cents in New York for near-by state eggs. There was an apparent mistake of the storage men in overestimating the consumption of the public at exorbitant prices, because so large was the unsold quantity at the beginning of the next egg year in the spring of 1911, that the wholesale price of eggs fell in April to 18.5 cents in Boston and New York, and the storage men dumped on the foreign market the greatest quantity of eggs ever exported from this country in a year.

From the returns made by the warehousemen, it is inferable that the fresh beef, mutton, and pork, the poultry, butter, eggs, and fish received into cold storage in a year amount to a weight of at least 1,000,000,000 pounds and very likely to a quarter of a billion more. The eggs received into storage in a year are approximately 13.5 per cent of the farm production; the fresh beef is over 3 per cent of the commercial slaughter of cattle;

mutton, over 4 per cent of that slaughter of sheep and lambs; and fresh pork, 11.5 per cent of that slaughter of hogs; and butter, 25 per cent of the creamery production.

The Secretary closes this feature of his report as follows:

"This is no indictment of the men who keep foods in cold storage, except in so far as they sometimes speculate, nor need they be indicted for offenses in order that the public economic interest in their business may be made to appear. The foregoing matter, it may be supposed, establishes that. The man who places food in cold storage is somewhat in the situation of the man who forestalls the market. He may not attempt to do, but the power may be a temptation.

"The affairs of such a business as this should have publicity. The public ought to know how much goods are in storage from month to month and what the movements of receipts and deliveries are.

"The food warehousemen should be required to send to Washington monthly reports containing the desired information. Here these reports could be promptly aggregated and the results could be given to the public on a previously announced day of the month, somewhat as the crop reports are."

The remainder of the report is devoted to the work and affairs of the various bureaus of the department and the Secretary's opinion of this work is that "the study of agriculture is progressing along scientific and practical lines and the work done indicates better mental equipment."

GOVERNMENT AID FOR CATTLE: WHY NOT A LITTLE FOR MAN?

The federal government, which is able to support a twenty-million-dollar Department of Agriculture and to issue Farmers' Bulletins in editions of billions, is entirely too poor to issue the valuable public health bulletins of the Public Health Service in editions of more than a few thousands. That it cannot afford a department of health goes without saying. The national government cannot afford to give to the health of its citizens the attention that it gives to live stock. Most of us cannot help feeling more interest in the health and welfare of human beings than in that of cattle and hogs. This, we admit, is unstatesmanlike. Yet, after all, is not a human being—even a child—worth something? Not so much as an Alderney cow, of course, but still something—enough to justify the expenditure of a few cents to save the life of the child where dollars are spent to save the life of the cow? It is our possible misguided belief, says "The Journal of the American Medical Association" that it is worth at least this much; and this must be our apology for offering a plan for utilizing some of the Agricultural Department pub-

lications in the prevention of disease among human beings. We hasten to add that the added expense for paper and type-setting would be infinitesimal; we do not believe that the interests of the live stock will be jeopardized.

We have before us a Farmer's Bulletin on tuberculosis in farm animals, which begins with a section on the "Nature of the Disease." We read: "Tuberculosis is contagious * * * it may not attract much notice from the owner of the cattle, as the disease is slow to develop and a cow may be affected * * * for several months." etc. Our suggestion would be to insert (in brackets, so that attention would not be too seriously diverted from the cattle) the words "father or mother of the children" after "owner of the cattle," and the word "child" after "cow." We have no suggestions to offer as to the chapter on "Importance"; the problem is clearly stated: "The importance of the disease must be estimated from two points of view: first, the loss it entails on the cattle-owner and second, the danger * * * to human beings."

The chapter on "Symptoms" is fairly satisfactory; a careful perusal of this chapter might enable a mother to suspect that her child was not suffering from a "common bad cough" (just as it helps the cattle-owner to see that something unusual is wrong with his cow) and that it was time to consult a physician. We must admit that the section "Post-Mortem Appearances" might not be of directly practical value; still its perusal might possibly convince a person with leanings toward Eddyism that it would be a little hard to will away "tuberculous lumps." The chapter on "The Tubercle Bacillus" would be very useful, for here we would find practical statements, such as that the bacillus "can live for a long time in favorable surroundings, such as dark or dirty stables (rooms)." Similarly the chapter on "How the Disease Spreads" would be decidedly practical: "Sooner or later the tuberculous cow (person) begins to give off the germs

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of the disease"; "they escape from the cow (human being) by the mouth, nose, etc.; germs are coughed up and sprayed over the food in front of the cow (individual); cows (people) in adjoining stalls (beds) may acquire the disease in this way." "The germs get into the milk, and hogs and calves (little boys and girls) are very readily infected by it." The chapter on "How a Herd (Family) is Infected" is excellent, as is also the chapter on "Sanitation." In the latter, for example, we would read that "dark, dirty, crowded stables (houses) are favorable to tuberculosis; clean, airy, well-lighted stables (houses) are unfavorable to the development of the disease." "Stables (houses) should have plenty of air space for each animal (whether of monetary value or only man)," etc. But the advice about sanitary homes (for cattle) is so excellent that we might safely advise the people to build such stables and then occupy them themselves.

But after all! Might we not hope that in the course of time it would be possible for the United States government occasionally to discuss the man first?

PUBLICITY FROM THE AMERICAN AUTOMOBILE ASSOCIATION

More than half the States have less than \$20,000 in available taxable resources to support each mile of road, according to Chairman George C. Diehl of the National Good Roads Board of the American Automobile Association, who has compiled some interesting statistics on the subject. Mr. Diehl's figures make it clear that, except in such thickly settled States as New York, Rhode Island, Massachusetts and others that have larger resources in proportion to road mileage, few of the States can afford to undertake unaided any comprehensive scheme of road improvement. These figures will be brought forward at the Federal Aid Good Roads Convention of the American Automobile Association at the Hotel Raleigh, Washington, D. C., January 16-17, as arguments in favor of assistance by the Federal Government in highway improvement.

A surprisingly large proportion of the members of Congress, and others in public life, have placed themselves on record in favor of Federal Aid. Among the strong supporters of this idea is Representative Oscar W. Underwood, leader of the majority in the Lower House. Congressman Underwood said recently: "There is no question in my mind about the attitude that the Government should take on the question of aiding in the building of interstate public roads. At this time, when the treasury is not in very good shape, it might be inadvisable to press the matter, but the time is not far distant when the Government will take the advanced stand of giving Federal Aid to the

building of important interstate highways. Nor is there any question of the constitutional right of the Government to give such aid. It was done in the case of the old Cumberland Road, and was abandoned because of the necessities of war. When the Government can afford to make the necessary appropriations, the system of Federal Aid should be restored. A more equitable tariff system would put the treasury in better shape, and the public might then have the advantage of Federal Aid."

Congressman John A. Moon of Tennessee, chairman of the House Committee on Post Offices and Post Roads, strongly endorses Representative Underwood's view. Mr. Moon says: "Under certain conditions, I am absolutely in favor of Federal Aid in the building of interstate public highways. Such highways add to the wealth of the Nation, as well as to the prosperity and happiness of the citizens. Expenditures by the Government for this purpose are real economy. There is no doubt that appropriations by Congress would be constitutional. When the treasury is in shape to bear the burden, the old system of Federal Aid should be restored under conditions which I will explain when the subject comes up. Improved public highways will certainly aid the work of the Post Office Department, and add to the ease of deliveries."

Among other recent expressions on the subject are those of Congressman Richard Bartholdt of St. Louis, who says: "I have always favored Federal Aid for the construction of the great National Highways, believing appropriations for such propositions to be constitutional as well as entirely proper,"—Senator George E. Chamberlain of Oregon, who says, "There is no more reason why the Government of the United States should not assist in the building of public highways than there is to prevent the Government from making appropriations for the improvement of the rivers and harbors of the country. Personally I favor Federal appropriations for the building of public roads, and I think this ought to be done in conjunction with the States, or with the subdivisions of the several States. I have not yet made up my mind in what proportion the Government should aid in this work, but I think the time will come when appropriations will be made by Congress for this purpose,"—and many others.

The Governors of nearly half the States have named delegates to the Federal Aid Convention. None of them has named less than three, and Governor Harmon of Ohio has appointed thirty-one to represent the Buckeye State. Several of the Governors have written expressing their personal interest in the Federal Aid proposal. Governor Noel of Mississippi writes as follows: "I have always taken a great deal of interest in the subject of good roads and believe that they should be

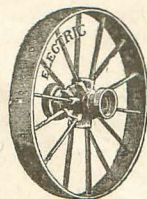
built by the State and that assistance should be rendered by the Federal Government also. There is no doubt that the automobile industry has done more to encourage the building of good roads and educating the people on the subject than any other one interest."

Interest in the convention on the part of business men's organizations has also been gratifyingly extensive. The sentiment of such bodies generally is well expressed in the following statement by J. E. Kauffman, secretary of the Galveston Commercial Association: "There is no difference of opinion among thinking men as to the importance of good roads, and in this State they are more than ordinarily interested in the matter, which at this time is considered the most important of all public questions which the people are considering."

Even outside the boundaries of the United States the Federal Aid question is a live one. Some of the Canadian Provinces, like many of the American States, have found their resources inadequate to establish unaided complete highway systems. In a recent letter from M. A. McLean, Engineer of Highways for the Province of Ontario, he says: "It may be of interest to you to know that the

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present Canadian Premier, Honorable R. L. Borden, has announced a policy of Federal Aid to Provincial highway construction, and it is anticipated that at the present session of the Dominion Parliament, legislation will be enacted in this regard. Details are under consideration, but have not yet been announced."

Besides the general subject of Federal Aid, considerable attention will be given at the Washington Convention to the proposed Lincoln Memorial Highway from Washington to Gettysburg. Representative William P. Borland of Missouri will make the principal address on this subject and lead the discussion. Replies received by the A. A. A. indicate that more than a hundred Senators and Representatives of Congress will attend one or more of the sessions at the Hotel Raleigh.

COPIES OF RESOLUTIONS PASSED BY SOCIETY OF EQUITY AT THEIR NINTH ANNUAL CONVENTION AT CHICAGO, ILL.

In as much as the stand taken by Secretary Wilson of the Department of Agriculture on the investigation of Pure Food and Drugs, also his stand on the investigation of what constitutes pure beer and against Dr. Wiley who has shown himself to be a friend of the farmer and the consumer of farm products, has proven himself detrimental to the interests of the farmers; therefore:

The American Society of Equity, a national organization of American farmers in annual convention assembled does emphatically request the removal of Mr. Wilson from the Department of Agriculture and that a copy of this resolution be furnished President Taft, Mr. Wilson, Dr. Wiley and the press.

Urges Worst's Appointment

Whereas, it is evident that a change will have to be made in the secretaryship of the United States Department of Agriculture in the near future if it shall serve the present needs of the farmers of the nation,

Therefore, Be it resolved, that the American Society of Equity in its ninth annual convention assembled at Chicago, Ill., December 8, 1911, recommends for an appointment as successor to the Secretary of Agriculture, Dr. J. H. Worst, president of the North Dakota Agricultural College. We urge and respectfully ask all other farmers' organizations and the farmers of the country generally to join hands with us with petitions to the president of the United States and otherwise to have this change brought about in the Department of Agriculture and give our assurance that his record in the upbuilding of the Agricultural interests of his state and the country as a whole and that his advanced ideas on the conservation of our natural re-

sources and on country life uplift unqualifiedly justifies this request.

Wiley's Work Commended

Whereas, Dr. Wiley, Pure Food expert has done a great work in giving the consuming world pure food and has now taken a stand on the great question of co-operation and the necessity for the elimination of unnecessary middlemen and has thereby aroused the undying enmity of the commission men and others interested in maintaining the high cost of living and the old system of robbing the producer and consumer, and

Whereas, these interests are now petitioning the president of the United States to remove Dr. Wiley,

Now, therefore, the American Society of Equity an organization of farmers of national scope resolve in annual convention that we heartily endorse the work of Dr. Wiley not only in the interests of pure food but for his assistance in the development of co-operation between producer and consumer and that a copy of this resolution be sent to those who have the removal or retention of Dr. Wiley in hand, also to Dr. Wiley.

Condemn Commission Men

Realizing that much harm has come to our farmers by the pernicious practices of the system of commission men,

Therefore, Be it resolved that we condemn such practices and urge our members to get in position as soon as possible to market their produce co-operatively and thru their own co-operative agencies.

FRUIT CULTURE?

Prof. C. B. Waldron

The success that the experiment station and many private growers have had with small fruits has led to numerous inquiries as to the methods employed and the varieties that may be recommended. We do not advise any one to attempt the cultivation of fruits without providing for their shelter by means of windbreaks. This is particularly true of strawberries that suffer greatly thru the effects of drying south winds and applies in a greater or less degree to all fruits.

The shelter should be along the south as the destructive winds come from that quarter. For the location of the fruit plantation select a north or northeast slope where it can be obtained and at any rate avoid a south or west one.

Provision must be made such that water will not remain on the ground for

any length of time during the spring thaws or after heavy rains.

Where the rainfall is not heavy, as in North Dakota, one should avoid a sandy or gravelly soil. In mellow soil the roots of strawberries extend down two and one-half feet and of the other fruits probably as deep. From this fact will be seen the necessity of providing a place having a deep mellow soil free from gumbo and of course from alkali.

Any soils excepting those naturally too light will be benefitted by a deep plowing and subsequent firming down with a harrow. We have not found it necessary nor even profitable to fertilize the soil at the station on which fruit is growing. Of

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The following are the three most popular sorts: One large package each **White Portugal, Yellow Globe Danvers** and **Red Wethersfield**, to test, 12c.

FOR 16c.
10,000 kernels of splendid Lettuce, Radish, Tomato, Cabbage, Turnip, Onion, Celery, Parsley, Carrot, Melon and Flower Seeds producing bushels of vegetables and flowers for 16c postpaid. Our great Plant and Seed Catalog free for the asking. Write to-day.

John A. Salzer Seed Co., 215 S. 8th St., La Crosse, Wis.

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—not a year from now, when land will be higher. The profits secured from the abundant crops of Wheat, Oats and Barley, as well as cattle raising are causing a steady advance in price. Government returns show that the number of settlers in Western Canada from the U. S. during the last year was upwards of 125,000 and immigration is constantly increasing.

Many farmers have paid for their land out of proceeds of one crop. Free Homesteads of 160 acres and pre-emption of 160 acres at \$3.00 an acre. Splendid climate, good schools, excellent railway facilities, low freight rates, wood, water and lumber easily obtained.

For pamphlet "Last Best West," particulars as to locations & settlers' rate apply Supt. Immig., Ottawa, Can., or Can. Gov. Agt.

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course soil having a much less degree of fertility would be benefited by plowing under a good dressing of well rotted stable manure. Unless it is so thoroly decomposed as to mix readily with the soil it will be better not to use any. It is generally recommended that currants and gooseberries have heavier soil than raspberries and while that rule may be successfully applied in localities having variable soil and a heavy rainfall it is sufficient to say under our own conditions that the deepest and best soil should be selected on which to grow all of our fruits. While there are undoubted difficulties to be encountered in growing fruit in North Dakota, still some of the fruits may be made to do unusually well here and considering the high prices to be obtained others are quite as profitable here as in more favored localities.

CARAGANA

The Caragana is strictly a northern plant and thrives for hundreds of miles north of here. It comes out early with a mass of small, yellow blossoms. This often becomes from 8 to 10 feet in height, and, like the other shrubs mentioned, makes splendid hedges. The agricultural college in Indian Head, Sask., had nearly a mile of Caragan hedge planted around its buildings. It is better known in some localities by the name of Siberian pea tree.

DOGWOOD

This is a native shrub which grows along the river banks of our state. It has a bright, red wood, blood red in winter. It is known to botanists by the name of Cornus Siberica. The Indians call it "kiniknick," but we call it red dogwood. But regardless of what we call it—call it what you please—it thrives under cultivation, develops a heavy foliage and carries a white bloom all thru July and into August.—E. C. Hilbourne.

NORTHERN PACIFIC AND NORTH-WESTERN LINES IN NEW TRAFFIC ARRANGEMENT

North Coast Limited Runs To and From Chicago via New C. & N. W. Cut-off

Effective Sunday, December 17th, the Northern Pacific's North Coast Limited now operates to and from Chicago over the line of the Chicago & North Western Railway by way of Saint Paul, Hudson, Eau Claire and Milwaukee. The train now runs over the new short line cut-off recently completed by the North Western and opened to traffic on December 11th.

With the establishment of this service, the Northern Pacific now has two daily trains between Chicago and the North Pacific Coast, as the Northern Pacific Express will be maintained over the Burlington as heretofore operated.

The equipment of the North Coast Limited now consists of Drawing-room, Compartment and Open-section Sleeping Cars, Tourist Sleeping Car, Coach, Dining Car and Observation-Library Car, with barber and bath. One of the Standard Sleeping Cars operates to and from Portland by way of the Spokane, Portland & Seattle Railway along the north bank of the Columbia between Pasco and Portland. The other equipment operates to and from Seattle and Tacoma. The train departs from and arrives at the new C. & N. W. passenger terminal, Canal and Madison Streets, Chicago. Westbound train No. 1 now leaves Chicago at 10:00 P. M., the time at Northern Pacific points remaining unchanged. Eastbound train No. 2 now arrives Saint Paul at 7:55 A. M., as at present, reaching Chicago at 9:00 P. M. This new service thru the city of Milwaukee and across Wisconsin places a large and populous territory upon a new transcontinental route, which it is expected will result in considerable additional traffic, and opens up a new route for new business.

THE PRINTED LETTERHEAD

Printed letterheads and envelopes are traveling advertisers, says W. C. Palmer, of the A. C. When a letter comes, it makes a big difference if it has a printed letterhead and envelope. It looks like business and it is business of the best kind.

The farmer needs such printed letterheads. There should be something for sale on every farm, and the letterhead can be made to advertise it very cheaply. It will also be found that the printed letterhead will have quite an influence on the person himself. The more he sees it the more pride will be taken in keeping up the quality of the articles for sale.

It is not accident that business men in all lines use the printed letterhead. They have found that it is a good business proposition. Those farmers who have tried it have found it both profitable and a source of pride. The cost will not be so much more than for plain paper. It may seem a little large but then one wants to remember that he is getting a good many sheets and envelopes at one time.

WHEAT CROP STATISTICS FOR THE UNITED STATES

Preliminary Statement of Thirteenth Census Results issued by the Census Bureau

Statistics relative to the wheat crop of the United States, collected at the Thirteenth Decennial Census, April 15, 1910, are contained in an official statement issued by Director Durand of the Bureau of the Census, Department of Commerce and Labor. It is based on tabular sum-

maries prepared under the direction of Dr. LeGrand Powers, chief statistician for agriculture in the Bureau of the Census. It covers all kinds of wheat combined—winter wheat, spring wheat, and durum or macaroni wheat.

The statistics presented cover acreage, production, and value for the crop year 1909 as compared with 1899. In making comparisons between the two censuses the data for acreage are the most significant, as changes in the area planted to a given crop are due largely to broad economic tendencies which are fairly well indicated by returns of one year out of ten. The production, however, fluctuates from year to year in accordance with current conditions of rainfall, temperature, etc., so that a comparison between one decennial year and another may not show the true general tendencies. Such temporary annual fluctuations in production also affect current prices, and consequently the aggregate value of the crop for any given year. Of course there may be broad tendencies with respect to average yield per acre and with respect to values in addition to such temporary fluctuations, but such tendencies can not be adequately indicated by statistics taken at such long intervals.

State Figures

The largest acreage in wheat was found in 1909 in North Dakota and Kansas. These two states combined had 14,161,757 acres in wheat, or nearly one-third of the total land planted to that crop. In 1899 Minnesota ranked first and North Dakota second.

In acreage the 10 states ranking highest for the two census years were:

1909.	1899.
1. North Dakota.	1. Minnesota.
2. Kansas.	2. North Dakota.
3. Minnesota.	3. South Dakota.
4. South Dakota.	4. Kansas.

EXCURSION RATES to the wonderful Mid-Coast country of Texas, the land of sunshine and flowers. Crops are grown successfully here every month of the year. Investigate the merits there, in place of expending the wealth accumulated in the summer months in fighting the bitter cold of winter; the farmers are planting and harvesting, wealth producing crops every month. No country in the world offers the great inducements to the ambitious farmer that are found in the Mid-Coast country. Write for round trip rates and further information. Address, E. R. Bailey, Pres. TEXAS MID-COAST LAND COMPANY, Clarinda, Iowa. - - Box 143 W.

NOTICE TO UNEMPLOYED—Any one desiring profitable employment at this season, either for full or part time work, should at once address A. B. KUHLMAN whose advertisements can be found in this paper.



DAKOTA FARMERS

Don't send your FURS AND TANNING WORK far from home. It isn't necessary. Here at Watertown we have every facility for paying the highest prices for Raw Furs, and for doing your Tanning cheaply and well. Our Circulars and Price Lists are FREE. Write Box HH

WATERTOWN HIDE & FUR CO.
[WATERTOWN, S. D.]

- | | |
|----------------|----------------|
| 5. Nebraska. | 5. Ohio. |
| 6. Illinois. | 6. Indiana. |
| 7. Washington. | 7. California. |
| 8. Indiana. | 8. Nebraska. |
| 9. Missouri. | 9. Missouri. |
| 10. Ohio. | 10. Michigan. |
- In production the 10 states of highest rank were:

- | | |
|------------------|------------------|
| 1909. | 1899. |
| 1. North Dakota. | 1. Minnesota. |
| 2. Kansas. | 2. North Dakota. |
| 3. Minnesota. | 3. Ohio. |
| 4. Nebraska. | 4. South Dakota. |
| 5. South Dakota. | 5. Kansas. |
| 6. Washington. | 6. California. |
| 7. Illinois. | 7. Indiana. |
| 8. Indiana. | 8. Nebraska. |
| 9. Ohio. | 9. Missouri. |
| 10. Missouri. | 10. Iowa. |

DITCHING WITH DYNAMITE

Reports to Secretary Wilson show that the work of the Agricultural Department recently did in experimenting on ditching with dynamite in ditches 6 to 12 feet wide and 3 to 6 feet deep proved successful and it is expected will result in the general use of this explosive for ditch construction.

The following statement was made by the Department: "There has long been need for an economical method of excavating ditches of small and moderate sizes, especially for wet or timbered land. Ditches wider than 16 feet usually can be made by a floating dipper dredge for 8 to 12 cents per cubic yard, thru swamps where stumps and logs are numerous. Very small ditches and trenches for tile are dug by hand when the total work is too small for employing a trenching machine, at a high cost per cubic yard excavated but not excessive cost per linear foot of cut. Ditches 4 feet or more wide can be dug in firm soils containing no stumps, logs, or large stones, by scraper dredges of various types. But in timber land especially if too wet for efficient hand labor, ditches may need to be many times larger than required for drainage, to float the only machine adapted to the work—the dipper dredge."

EVERY FARMER HIS OWN PAINTER

Any man can do an average job of painting, and can thereby not only improve the appearance of his place, but can add greatly to the durability of the buildings.

The average farmer, if there is such a thing, seems to think that paint is used solely for ornament, and he is of all men most keenly practical, he eschews what he regards as an unprofitable luxury. It is perhaps the rule rather than the exception in some sections to see houses and agricultural implements sadly in need of repaint.

Of course paint does improve the ap-

pearance of property, but it is far more useful as a protector rather than an ornament. The expenditure of a small amount of money and time in painting a valuable piece of farm machinery or a building will add greatly to the length of its life. Another useful object accomplished by painting is the improved sanitary conditions of buildings and outhouses. The cost of such work is small, the necessary equipment not expensive, and with proper care will last a long time.

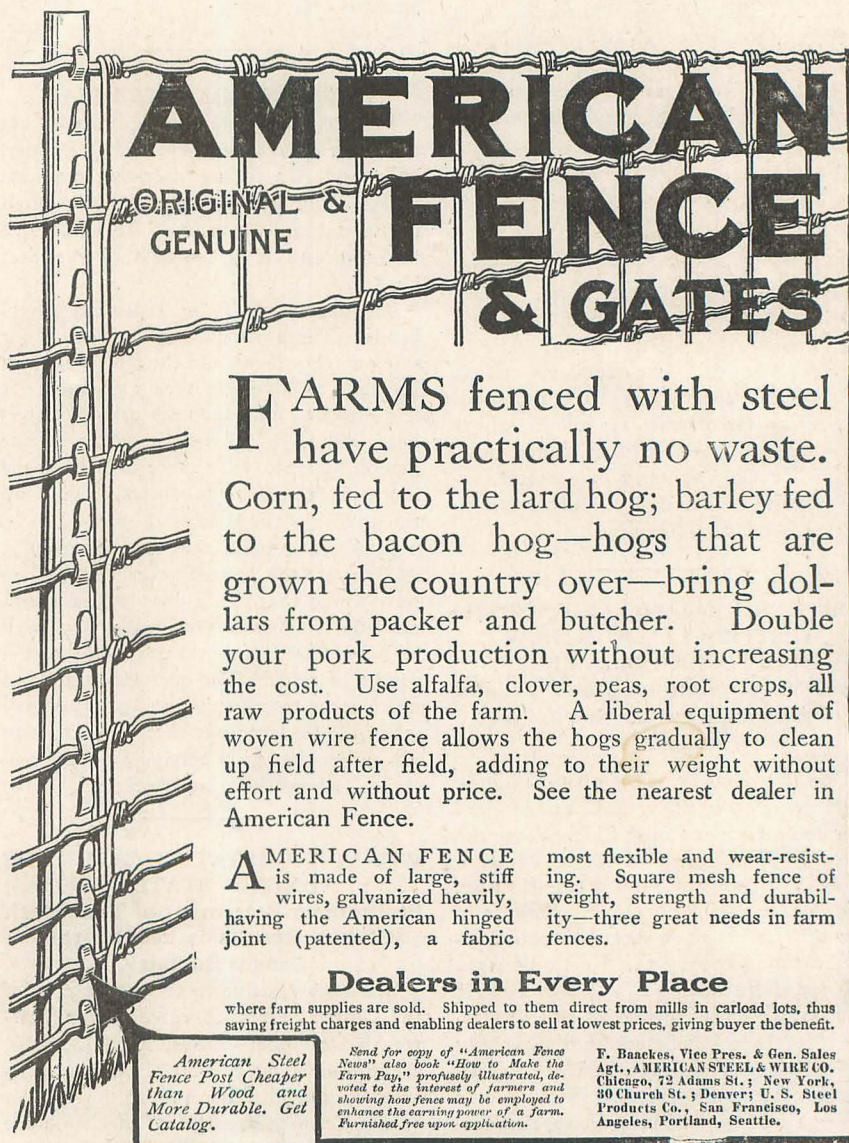
In order to supply information which will enable the farmer to purchase the paint economically and apply them intelligently and to the best advantage, Secretary Wilson caused experts in the Bureau of Chemistry to investigate the subject and prepare Farmers Bulletin No. 474 calling attention to the economic importance of painting farm buildings and equipment and giving details as to the cost, purchase, and care of brushes, cost of the ingredients needed, how to mix and apply them.

Paint conveys to the casual reader the

idea of a mixture of pigment with linseed oil, but the general conception of the word includes both whitewash and calamine, but not varnish, and the bulletin gives several very valuable recipes for making both of those excellent coatings for both the out and inside of buildings.

The Secretary in addition to urging the proper use of paints for both useful and ornamental purposes, for he does not think anything too good or attractive for the farm homes, emphasized several precautions: "Do not use any paint containing compounds of lead about stables or outbuildings where the fumes from decaying organic matter occur, since these gases are likely to darken the lead paints. Do not use with lead compounds any pigment which may liberate compounds of sulphur.

AGENTS WANTED—First-class for this and surrounding counties, for the "New Standard 1910 Census Atlas of the World." Agents making \$40 00 to \$60 00 per week. Best of terms. Also Agents for low-priced, easy-selling juvenile and Holiday Books Combination Outfit postpaid only 20c. 50% commission to agents. Full particulars free. Address A. B. KUHLMAN, Publisher, 136 West Lake St., Chicago, Ill.



AMERICAN FENCE & GATES
ORIGINAL & GENUINE

FARMS fenced with steel have practically no waste. Corn, fed to the lard hog; barley fed to the bacon hog—hogs that are grown the country over—bring dollars from packer and butcher. Double your pork production without increasing the cost. Use alfalfa, clover, peas, root crops, all raw products of the farm. A liberal equipment of woyen wire fence allows the hogs gradually to clean up field after field, adding to their weight without effort and without price. See the nearest dealer in American Fence.

AMERICAN FENCE is made of large, stiff wires, galvanized heavily, having the American hinged joint (patented), a fabric most flexible and wear-resisting. Square mesh fence of weight, strength and durability—three great needs in farm fences.

Dealers in Every Place
where farm supplies are sold. Shipped to them direct from mills in carload lots, thus saving freight charges and enabling dealers to sell at lowest prices, giving buyer the benefit.

American Steel Fence Post Cheaper than Wood and More Durable. Get Catalog.

Send for copy of "American Fence News" also book "How to Make the Farm Pay," profusely illustrated, devoted to the interest of farmers and showing how fence may be employed to enhance the earning power of a farm. Furnished free upon application.

F. Baekes, Vice Pres. & Gen. Sales Agt., AMERICAN STEEL & WIRE CO., Chicago, 72 Adams St.; New York, 30 Church St.; Denver, U. S. Steel Products Co., San Francisco, Los Angeles, Portland, Seattle.

For example, ultramarine blue white contains sulphur in a form in which it may be set free is a beautiful and very permanent blue and may be used with zinc white, but should not be used with white lead or any other lead pigments. Prussian blue, on the contrary, does not contain sulphur and may be used with lead pigments.

"Remember that turpentine and benzine are very inflammable and especial precautions should be taken not to bring paint containing these substances near any light or open fire.

"Many pigments are poisonous, and the workman should be particularly careful to remove all paint stains from the skin, and not under any circumstances allow any of it to get into his mouth. A man should not eat in the same clothes in which he has been painting, and before eating should not only change his clothes but should wash all paint stains from his skin. It is not advisable to use turpentine or benzine in removing paint stains from the hands, but by oiling thoroly with linseed oil, or, in fact, with any fatty oil, and then thoroly washing with soap, the paint may be removed, provided it has not been allowed to dry too thoroly on the hands."

A NEW ANNUAL

A North Dakota book for North Dakotans. The Farmers' Institute Annual No. 11 is ready for distribution. The book contains 420 pages and is well illustrated. The North Dakota Farmers' Institute having no funds, Deere Webber and Company of Minneapolis published the annual and donated it to North Dakota. It can be had by sending ten cents (to cover postage) to T. A. Hoverstad, Supt. North Dakota Farmers' Institutes, Fargo, N. D.

The articles are nearly all written by North Dakota men and women to meet North Dakota conditions and it is right up-to-date. This makes it especially valuable.

The articles cover the farm and the home. Some of the subjects considered are: Foods, principles of cooking; fabrics, their qualities and uses; gardening; fruit-growing; trees; wind-breaks; barns; dairying; corn; machinery; roads; tillage; dry farming; hygiene; etc., etc.

It is a book that should be in every farm home.

of gasoline. So why worry about the price of gasoline, so long as kerosene remains so cheap?

Kerosene, besides being cheaper and more powerful, pint for pint, than gasoline, is much safer.

It never explodes. Nor does it waste by evaporation. Kerosene is more convenient to buy, too. You can get it at any store, cheap, while gasoline is always high, and not every storekeeper handles it.

A great many of our readers are taking advantage of the Detroit Engine Works' offer to ship a Kerosene Engine on 15 days' free test to prove that kerosene beats gasoline in every way. We suggest to all our readers that they, before buying a farm engine of any description, look into the kerosene engine.

A man with the "Amazing Detroit" not only has an engine especially equipped for kerosene, but when necessity arises he can use benzine, distillate, alcohol or gasoline. This engine sells at a very low price, so anybody can easily afford one. It comes ready to run and is a perfect engine for pumping, sawing, threshing, churning, separating milk, grinding feed, etc.

A postal mailed today to the Detroit Engine Works, 385 Bellevue Ave., Detroit, Mich., brings catalog, prices and full explanation of 15 Days' Free Trial Offer.

Mr. W. A. Weber, of Mankato, Minn., whose advertisement for this season start this issue in our paper, is one of the leading poultrymen of the Northwest. From his Cedar Lawn Poultry Farm, Mr. Weber, shipped last season a single order containing 1940 EGGS FOR HATCHING PURPOSES. Look up Mr. Weber's advertisement in this paper and send to him for his book. It may save you costly mistakes in purchasing both poultry and eggs this season.

To Keep the Hands Soft

Keep on hand the two following preparations: One consisting of five parts lemon juice to one part of alcohol and another made by soaking one-quarter ounce of gum tragacanth in one pint of rain water for three days and then adding one ounce each of alcohol, glycerine and witch hazel and a little good perfume. After washing dishes or doing other rough work apply a little of the

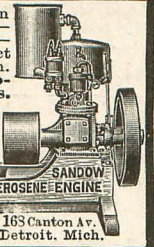
lemon juice, then some of the lotion and the hands will be soft and smooth.

A small box of cornmeal kept on the kitchen washstand will be found helpful. When combined with soap it quickly removes dough, paste or black grease from the hands

WANTED—Canvassing Agents at once for the sale of "Compendium of Everyday Wants," the book of general necessity, price \$1.50; also for "The Devil's Bride," a wonderful religious allegory, price \$1.00. Either outfit sent postpaid for 10 cents. 50% commission to agents. Big sellers, Address A. B. KUHLMAN, Publisher, 136 West Lake St., Chicago, Ill.

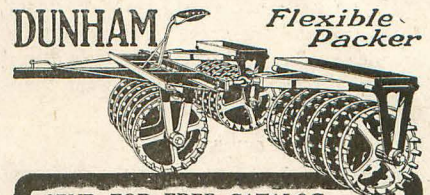
Sandow \$37⁵⁰ 2½ H. P. Stationary Engine—Complete

Gives ample power for all farm uses. Only three moving parts—no cams, no gears, no valves—can't get out of order. Perfect governor—ideal cooling system. Uses kerosene (coal oil, gasoline, alcohol, distillate or gas). Sold on 15 days' trial. **YOUR MONEY BACK IF YOU ARE NOT SATISFIED.** 5-year ironclad guarantee. Sizes 2½ to 20 H. P., at proportionate prices, in stock, ready to ship. Postal brings full particulars free. Write for proposition on first engine in your locality. (118)
Detroit Motor Car Supply Co. 163 Canton Ave. Detroit, Mich.



NULITE GASOLINE TABLE LAMP

The cheapest, best and most beautiful light obtainable for town or country. Makes and burns its own gas; 300 C. P. 5 hours for one cent. Can be used anywhere with amazing results. Low in price, Thoroughly reliable. Many new and exclusive features. Best proposition of the year for agents. Write today for full details. National Stamping, Electric Work 439 S. Clinton St., Chicago.



SEND FOR FREE CATALOG

This Dunham Three-Gang Flexible Packer adjusts itself to the inequalities of the field and packs the soil thoroughly, leaving no strips between the sections. Extra weight can easily be added in the angle-iron box frames. Dunham Packers, Pulverizers and Rollers are made for all soil conditions. Stock near you. Write us. **THE DUNHAM CO. 46-94 1 Ave., Berea, O.**

KEROSENE ENGINES REPLACING GASOLINE

Our many readers who are about to buy farm engines, will be pleased to know that the high price of gasoline is nothing to become alarmed about. As a matter of fact, gasoline is not and never was as good an engine fuel as common kerosene (coal oil). Two pints of kerosene, under actual test, gave more engine power than three pints

Make \$2000⁰⁰ more per Year

Hundreds of farmers **right now** are making from \$1000.00 to \$2000.00 a year extra money, besides keeping up their farm work, making wells with the

Improved Powers Boring and Drilling Machine

Bores 100 ft. in 10 hours. One man can run it; a team operates it and easily moves it over any road; Bores slate, coal, soapstone—everything except hard rock, and it drills that. No tower or staking—rotates its own drill.

20 years actual service all over the world have proven this the fastest and most convenient well machine made. Easy terms. Write for catalog.

LISLE M'F'G. CO., - - - Box 440 Clarinda, Iowa.



North Dakota Farmer

Entered as second class matter in the postoffice at
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PUBLISHED EVERY MONTH

W. G. CROCKER, PUBLISHER.
Lisbon, N. D.

E. F. Ladd, Editor FARGO, N. D.

BUSINESS MANAGEMENT, LISBON, N. D.

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PROF. W. B. RICHARDS, Livestock.
PROF. C. B. WALDRON, Fruits, Forestry, and
Insect Pests.
GEO. HAUSMANN, Poultry.

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Address all business correspondence to the
Lisbon office.

Vol. 13 JANUARY, 1912 No. 7

Farmers cannot be too careful about feeding flax screenings, as several fatal cases of flax poisoning have been reported.

In another section is given the menu at the Corn Banquet so skillfully managed by Mr. and Mrs. G. W. Randlett at the Tri-state Convention.

The fact that a thirteen-year-old boy won the grand prize at the Corn Show is evidence that the young farmers of the state are crowding hard their elders.

If you have not sent for the Farmers' Institute send ten cents to cover postage at once to Supt. Hoverstad, Agricultural College. One article alone on Barn Plans is well worth the cost of postage.

If you are in doubt about the purity of your drinking water, drop a postal to the Chemical Department of the Agricultural College and directions will be sent you for having a sample tested without cost.

How necessary it is that the harness properly fit the horse! Because a horse is dumb thru his sufferings is no reason why he should be tortured by an ill-fitting collar.

Why should the farmer be blamed for protecting the game birds upon his acres against the city sportsmen? Nearly every bird on the farm saves the farmer its weight in silver by destroying insects and weed seeds.

It is as difficult to convince the farmers of North Dakota that corn cannot be

raised in this state as it would have been to persuade the Mandan Indians that corn was a failure in the seventeenth or eighteenth century.

What are you doing to lighten the work in the home? Have you furnished the housewife with as many labor saving devices as you yourself make use of? Today no farm home is complete without lighting, heating and water systems.

Farmers of every community should co-operate, not only to raise the efficiency of the farm but for the purpose of social intercourse. The fruit growers of the west combine to their advantage. Why not the wheat growers and flax growers?

The time when the farmer buys his potatoes, butter and eggs is past. Nearly every farmer has a bunch of poultry, which ought to be doubled. Let the poultry be well-housed and amply supplied with animal food, dust baths and plenty of grit.

One of the greatest leaks in farm management is the discarding of self binders when for a small amount they could be easily repaired. Now is the time to overhaul the machinery or at least haul it to shelter if it is now rusting by the roadside or out in the field.

There is not a business or a profession that is not dependent upon the success of the farmer. Many banks in the state are emulating the First National Bank of Fargo, whose offer of one thousand dollars in cash prizes drew such a fine exhibit to the Tri-State convention.

There are few animals on the farm which do not have a name, but how many farms there are without a name! If you have seed or stock for sale we urge you to name your farm and obtain a supply of printed stationery. A merchant is often judged by the quality of his stationery.

From all indications there will be a dearth of seed corn in this state. The first thing to do is to test your own seed. If you find it viable and have seed to spare let the fact be known. If the test shows that the corn will not grow, obtain northern grown seed from a reliable seed house and don't fail to double your acreage.

DIVERSIFY!

It is useless to introduce livestock until preparation is made for raising food for the stock. We strongly urge every farmer to prepare for a small field of alfalfa and to double the acreage of corn. While we strongly commend the raising of corn we

should not lose sight of the fact that North Dakota will remain foremost as the source of the best wheat and flax.

That we might furnish our readers with several most excellent papers read at the Tri-State Convention we have delayed the issue a few days and it gives us pleasure to announce that in this and several following issues we shall be able to allow you to partake of a feast of good things, altho it is impossible to supply the enthusiasm of those meetings.

It is undoubtedly a fact, and one which we very much deplore, that there are a great many mail-order houses whose goods are not what they are represented to be and are therefore not worth the price asked. In spite of the efforts of the United States Post Office Department and the leading magazines, it is impossible to rule out all misleading, exaggerated advertising.

ANALYSIS OF WATER

What steps are necessary for a subscriber to get water tested as to its purity? Is this work done at the Agricultural College, and if so to whom should it be sent? How much water will be necessary and what will the charges be?

Wales, N. D. Subscriber.

Answer: Waters are analyzed for farmers at the Agricultural College free of charge. Two quarts of the water should be sent in a clean vessel, express charges prepaid. See that your name and address appears on the package so that it can be identified as received, and at the same time send a full description with regard to the water and what is wanted, addressing the same to the Chemical Department, Agricultural College, Fargo, N. D. It is better, however, before sending samples of water, to write for printed instructions for the taking and shipping of water for analysis and thus get the information which should be furnished for the best results.

NORTH DAKOTA FLAX CAPTURES PRIZE AT LAND SHOW

Howard Elliott's Silver Pitcher Secured by Ed. Stewart, of Langdon

The Northern Pacific prize silver pitcher for the best sample of flax grown in North Dakota or Montana at the Saint Paul Land Show was captured by Ed. Stewart of Langdon. Five other prize silver pitchers were awarded for various products grown in the several Northern Pacific States.

The pitchers were quite a feature of the Land Show, being something new in the line of prizes and the contest for them was very keen.

Pure Food Advertisers

The products advertised below are in compliance with the pure food law of North Dakota and of the highest grade.
ASK YOUR GROCER FOR THEM.

"BUY"

"EAT"

HOME BRAND

Pure Food Products

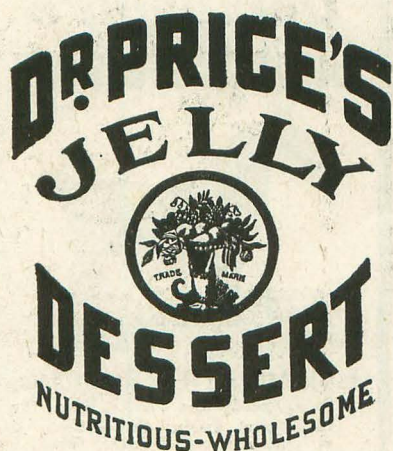
"ECONOMY" "SATISFACTION"

Griggs, Cooper & Co.

MANUFACTURING
WHOLESALE
GROCERS,

ST. PAUL, MINN.

Main Offices:
CORNER THIRD AND BROADWAY



One package, 10 cents, makes one pint of wholesome Fruit Jelly. All flavors from true fruits.

The Purest of Pure Food Products

are packed under the Brands of

Nokomis
PURE FOODS

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PURE FOODS

Wampum
PURE FOODS

Stone-Odean-Wells Company
DULUTH, MINN.

BRANCH HOUSES-Minot, Bismarck, N. D. Billings, Bozeman,
Butte, Great Falls, Mont.

MONARCH BRAND



FOOD PRODUCTS

A GUARANTY OF PURITY. A WELCOME GUEST at every table where the HOUSEWIFE demands the BEST. THE MONARCH LABEL insures QUALITY in Coffee, Catsup, Pickles, Maple Syrup, Canned Goods or any article bearing the MONARCH BRAND of REID MURDOCH & CO. CHICAGO.

ANOTHER PURE FOOD PRODUCT

CEREKOTA

Self-Rising

Pancake Flour

Is a Scientific Preparation of Healthful Appetizing Ingredients
and the Best Flour Milled in North Dakota

GUARANTEED Pure and Wholesome

Ask Your Grocer for a Trial Package

Bemmels Milling Company

Sole Manufacturers

Lisbon,

North Dakota

Livestock Department

FARM AND STOCK NOTES

N. J. Shepard

With all kinds of stock when necessary to change feeds do it gradually.

A scrub may yield a profit, but if so a good animal would give a greater profit.

The business end of farming needs to be studied even more than farming.

That producer is most successful who keeps himself in the line of the market.

If you can double the productiveness of your farm, you will more than double its value.

The food of support is more than the food of gain under the most favorable circumstances.

in the middle of the road does not constitute good driving.

Good stock must have good care and attention and then they will make the most liberal returns.

It is not the amount of money saved that makes a man wealthy but the amount invested judiciously.

Vitality in an animal once broken is repaired at a loss, and is liable to break again under a strain.

The adaptability of the different crops to the different kinds of soil is one of the secrets of successful farming.

A proper rotation of crops gives a better distribution of labor and affords more



"An Absolute Necessity, Notwithstanding the Tractor."

The most economical man is the one who spends the most money to the best purpose.

The size of the farm has less to do with success than the manner of farming.

Hogs will not eat too much salt if a supply is kept where they can help themselves.

One of the best ways of manuring house plants in winter is by using liquid manure.

Holding the rein and keeping the horses

continuous work for the farmer and his teams.

It is the amount of butterfats in milk in proportion to hundred pounds that gives it value for any purpose.

The cow is a milk making machine and should be kept in the best working condition and this condition is one of quiet.

No aged sow that has proved herself a good breeder and suckler should be dis-

posed of to make room for young untried sows.

The system of farming is best which markets the products of the farm in the most compact form and leaves the greatest amount of fertilizer behind.

Grain in butter is the result of skill on the part of the maker of the butter in so churning as to free the butter from the buttermilk and incorporate the salt without breaking the natural globules of fat.

When a man strives to know the best way to do a thing and then does it, there is something in the doing that makes him a better man. This applies to the care and treatment of stock. The best way is not only the more profitable but it elevates a man morally to treat his stock in a humane manner.

PRODUCTION OF FEEDERS

Read at the Tri-State Convention
By W. S. A. Smith

No thinking man can help but see the wonderful changes occurring in this big country and how fast these changes come. Here we have had, up to a few years ago, vast breeding and grazing grounds where free range cattle have been produced very cheaply. Now the free ranges are prac-

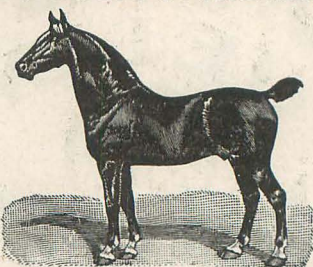
SALESMAN QUICK for circus Liniment and Remedies. Grand Opportunity for street and auction man \$150 to \$100, per day. Particulars free. Address **CIRCUS LINIMENT COMPANY, Chicago**

VETERINARY COURSE AT HOME.

\$1200 year and upwards can be made taking our Veterinary Course at home during spare time; taught in simplest English; Diploma granted positions obtained for successful students; cost within reach of all; satisfaction guaranteed; particulars free. **Ontario Veterinary Correspondence School, London, Can.**

Warranted to Give Satisfaction.

Gombault's Caustic Balsam



Has Imitators But No Competitors.

A Safe, Speedy and Positive Cure for Curb, Splint, Sweeney, Capped Hock, Strained Tendons, Founder, Wind Puffs, and all lameness from Spavin, Ringbone and other bony tumors. Cures all skin diseases or Parasites, Thrush, Diphtheria. Removes all Bunches from Horses or Cattle.

As a Human Remedy for Rheumatism, Sprains, Sore Throat, etc., it is invaluable. Every bottle of Caustic Balsam sold is warranted to give satisfaction. Price \$1.50 per bottle. Sold by druggists, or sent by express, charges paid, with full directions for its use. Send for descriptive circulars, testimonials, etc. Address

The Lawrence-Williams Co., Cleveland, O.

tically gone, or are so cut up by settlers as to be practically useless. The consequences of this is that the production of cheap cattle is nearing an end; the time has now come when it is possible and highly probable that cattle will be produced from our higher priced lands at a profit. Census returns show us that in ten years population increased 21 per cent but cattle only increased 4 per cent. If this ratio continues a few years more it is not hard to see what will be the results.

Here around Fargo you people are going thru the same transition stage that other states have gone thru. Iowa grew wheat for years and her people kept getting poorer. At one time in this period I understand congress voted an appropriation to keep the people in north-western Iowa from starving. Kansas was a wheat state, and I remember myself giving a little twenty-five years ago to help send out food. Now, see where Iowa stands and think what has been and is the main cause of her great prosperity. Without a question—livestock. There is no state or country known on the face of this earth where exclusive grain raising is a success.

Skimming the cream off the land may last a while and make the first settlers a little money but the inevitable must come—the yield keeps getting less, the land foul and chemically unfit until at last the people turn to diversified farming and get down from speculation to business.

My subject here today is Production of Feeders. The question is often asked me, which pays the best to feed, common or good cattle? This at first glance seems an easy question to answer, but it is not. First, the term "scrub" is vague and applies to a large class of cattle. What is known in stockyards parlance as "knot heads" are scrub cattle, but these, being practically out of the question as feeders, need not be considered. This brings us down to what are known as plain or common cattle, and the question as to whether common pay better than well bred steers in the feed lot is an open one, depending largely upon whether the common steers are bought as such, and whether the well bred steers really are well bred. Every cattle man knows that in every bunch of cattle there is always a top. If the prospective feeder picks a lead out of a lot of common cattle, he certainly gets a top of a kind; still he is likely to have a very inferior lot of cattle that were probably bought for more than they were worth. As a rule they carry a little more flesh, and this covers a multitude of sins.

Anyone who reads any of our agricultural papers knows how they keep on advocating the handling of well bred stock. No one can put up any argument against this, for we are all

aware that the well bred, broad-backed steer carries the meat where the high priced cuts come from; still there is just as much money made in feeding common cattle, if they are bought as common cattle, as there is in feeding well bred cattle. They may not put all the gain in the right place, and it may not be high-priced, but the public is now demanding cheap meat and someone has to produce it. Furthermore, at least three-fourths of all the stocker and feeder cattle available are plain to common; it is simply impossible for everyone to feed good cattle. As far as the direct profit goes in feeding, there is always more or less speculation, and a feeder is just as likely to get a \$2 advance on a common steer as on a good one. It is one of the queer things in feeding that if one buys 100 common steers, it is surprising how many decent fat steers one gets; similarly, it is equally surprising how many tail-enders one secures in buying 100 good cattle. In other words, where both classes of cattle are available, it isn't every one who can distinguish the good feeders from the poor ones, and it ought to be part of every feeder's business to study this closely.

Good Steer Has Many Advantages

Anyone hearing this would naturally think that I am an advocate of the common steer. Far from it. I am simply looking at the matter from a feeder's standpoint. If the breeder is fool enough to raise common cattle from common bulls and sell them for common prices, that's his loss; if I can buy the thin frame of a two-year-old steer, which up to that time has been produced at a loss, that's my profit if I can make it. What then is the benefit in feeding well bred cattle? First, as a rule they make larger gains for the feed consumed, and they make the gain where it counts the most. Second, the direct profits from cattle feeding come from the advance in dollars over cost, and after the cattle have been fed four or five months. If the market goes wrong it is often possible to carry good cattle longer and come out right, while the common cattle would eat their head off. Third, there is the wonderful effect the handling of good cattle has on the man himself, which, altho it cannot be measured in dollars and cents, generally leads to that. No man can make a success of his business who does not love it above dollars and cents; and when a man likes and handles good cattle he takes an honest pride in them, and this pride leads up to other things in his business. In handling good cattle a man will meet and mix with the better class of farmers and feeders; this is naturally broadening, and his business will broaden with him. If anyone doubts this, let him look around in his own community, not

at the get-rich-quick kind, but at the few really successful farmers—the kind who try to keep up the fertility of their land.

Now, which of these cattle is it going to pay you to raise, and is it possible for you to raise these cattle at a profit here? A few years ago the three-year-old steer was the steer generally fed, but every year now sees a change. The yearling as baby beef is coming more and more into favor, and the feeders of baby beef are having a harder proposition every year to find calves suitable, for you must understand that a calf must be well bred, good type and carrying baby fat to answer this purpose. When I run against such calves, it's pretty hard to leave them, and a pretty long price that turns me down. The demand for such stuff will steadily increase because we cannot afford to hold a steer for two or three years on this high-priced land and there's really more money in selling as a calf. Why can't you raise such calves here; and where will you find a steadier or surer source of income. Take any good half section of land around here, it is quite capable of maintaining 100 cows and raising eighty to ninety calves per year.

There are no cattle so popular among feeders as northern bred cattle for they, if well bred, always do well in the feed lot. With the great advance in modern machinery I have questioned for some time whether it pays to pasture land, and think that now with silage and clover it is cheaper to grow the crops and put up hay and silage than to pasture; and if any man gets down to business it is surprising how much clover and silage can be raised on a quarter or half section of land, how many cattle he can keep a year on his farm, and how steadily he will thru the manure increase his yield of crops and cattle. I suppose to a great many men in this wheat belt manure is too small an item to figure on. Let me tell you on my farm worth from \$120 to \$150 an acre I am well satisfied to feed cattle if I can get full market price for what I produce if I can have the manure as a profit; my profit comes from producing a little more every year and keeping up to the best of my ability the fertility of my land.

In the subject Production of Feeders there are other feeders which you can raise as well as cattle, and that is hogs. There is no reason why every farm here cannot produce some hogs. It all adds to the profit and they are ready sale if you have no grain to feed them. Even a few sheep if only for home consumption ought to pay well. What struck me most in my visit here two years ago was the large number of idle men in winter. Simply grew a grain crop in summer and loafed all winter. With the high prices of feed stuffs all the wheat and the straw which is burned up here has

with a little oil meal a good feeding value and ought to be utilized. I fully realized that if you take paper and figure up, charging each cow with a year's feed expense, that the calf at 6 months of age will seem a pretty expensive calf, and you may and will probably figure a loss. But this is the wrong way to figure. If from a half section of this land you can sell ninety 500-pound well bred calves for 5 cents per pound, or \$2,250, and in addition, sell enough milk to pay expenses with the help of a few hogs, and sheep, and poultry you are getting mighty good interest on your investment, and you are banking far more money than you realize in the building up of your farm, for the time is rapidly going by when a coat of paint will sell a farm. There may be and always will be chances to buy cattle sometimes cheaper than you can raise them. If you see these chances, take them, but above all things remember that it takes years to build up a farm and it is only with livestock and clover that you can do so. The cartoon I saw some time ago of the farmer near Fargo upbraiding a very thin goose because she had only laid one little golden egg was good—the thin old goose is shown as saying to the farmer, "If you expect me to keep on laying golden eggs you must feed me." Boys, are you feeding your goose?

Some of you may think I am just theorizing. Let me tell you about a little town in Jones county, by name of Monticello, population 1,980. There are two banks there, one has on deposit \$1,000,000, and the other, the Monticello State bank, \$1,540,000. Where does this great wealth come from? Mines, factories? No, simply from farmers. There are only 650 depositors in the latter bank. Just think what they average.

Dozens of farmers have on deposit sums ranging from \$40,000 to \$60,000, and this was once a wheat and small grain country until they began to starve out and were literally forced to try something else, and now from livestock and dairying see the results. No conservative banker will lend much around here on a prospective grain crop, but go to the same banker and tell him you have eighty acres clover and ten cows and want twenty cows more and see how he will meet you if your reputation is good.

MARKETING STOCK

Read at the T.-S. C.

By W. H. Tomave

Wherever the marketing is done thru local buyers, very little of the stock sells on its merits, and the common practice has been to buy most of it at one price, with little attention to quality and individuality. Many communities have had from one to half a dozen buyers who must be compensated for their time, al-

ways at the cost of the farmers, regardless of service rendered. In many instances the commission to the buyer for handling the stock has been as high as 50 cents per hundred, after paying the expense of shipping. This system is wrong in principle and does not permit of handling the stock as economically as where it is all shipped by one person and thus eliminate many unnecessary expenses.

In order to get the growing of livestock on a paying basis, cattle must not only be economically fed, but must be marketed at a small cost. This cannot be done under the present system of marketing; and the only solution of the problem is co-operation. What the co-operative creameries have done in building up the dairy industry thruout the northwest, the co-operative shipping associations will be able to do for the meat-producing industry. Co-operation along this line is still in its infancy, but it has been carried on extensively enough to prove its value and practicability beyond a question of doubt. Several years ago the people in the vicinity of Buffalo, Springfield and Litchfield, Minn., began shipping their own stock in a small way. They soon discovered that it meant a great saving over the old system of disposing of livestock, and in a short time they were shipping practically every-thing produced at those places. The association at Litchfield has shipped during the past year about 100 carloads of stock, valued at more than \$150,000, on which a saving of at least 10 per cent has been effected. Just what this system of livestock shipping will mean to the farmers of the northwest in increasing the profits from livestock growing is hard to estimate, but it is safe to say that in ten years time there will be as many co-operative live-stock shipping associations as there are now co-operative creameries. During the past year there have been organized, in Minnesota alone, twenty of these shipping associations, all of which are doing a successful business and in every instance mean a considerable saving to the farmers. Some of these associations report that they have been able to realize over \$50 a carload above that paid by local buyers, after paying all expenses and a good commission for handling.

The shipping of live stock in this way not only means a financial saving to the farmers, but it demonstrates to them that it pays to feed live stock better and get it in better condition before it is marketed. Mr. Halvorson, the manager of the Litchfield association says that he has noticed a very marked improvement in the quality of the stock delivered to him for shipment since the association was organized. The reason for this is that every-

thing is sold on its merits at the central market instead of at one price to all. The farmers who ship thru these associations also take a deeper interest in the better handling of live stock, so as to get it on the market in the best possible condition.

But it is an unwise plan to organize one of these shipping associations hastily and without definite assurance of loyal support from the stock-raisers of the vicinity. For, as in all other forms of co-operative endeavor, one failure will do more to injure the movement than can be realized by a number of successful organizations. Country buyers, who have been in the habit of buying live stock at will and paying whatever they pleased, are doing everything they can to break down this movement. Therefore, I would advise the organization of these associations only where the people feel that they are in need of a better system of marketing. When such is the case, the farmers will support the institution and keep it from becoming a failure, which might be the result where the people take hold of the movement in a half-hearted way.

To organize one of these associations requires no capital, as the farmers are not paid for their live stock until the returns are received from the central market. It is only necessary to adopt a constitution and set of by-laws, and elect a board of directors, who will appoint a manager to handle the business. The success or failure of the enterprise depends to a large measure on the manager. It requires a live, up-to-date and energetic man, who has good judgment as to the condition of livestock, and who will make a study of the business. The manager decides on a date of shipment, and every person who desires to ship at that time must notify the manager as soon as his stock is ready, so that he can order a car large enough to handle everything that is reported. The stock is then delivered to the manager, who looks after the weighing and loading. Cattle and veal are marked by clipping a number on the hip; sheep are marked with paint; while the hogs are classified according to weight. This enables the commission firm handling the stock to sell everything on its merits and each farmer receives just what the stock will bring on the local market, less the cost of shipping. Accurate records are kept of every shipment, and every farmer receives a statement with his check, showing what was paid for freight, feeding, commission and other expenses. The commission usually paid for shipping the stock ranges from 6 to 10 cents per hundred, which makes it possible for the manager to earn good wages and give the business his best attention. About 2 cents per hundred pounds is set aside as a

sinking fund, to cover losses that may occur. In Minnesota a central association has been organized, which is helping to organize local associations throughout the state, and is doing everything it can to develop this system of shipping live stock. By having a number of local shipping associations organized in the state, it is possible to secure legislation along the line of better facilities for handling the stock by the railroads, and accommodations at local loading points. There seems to be no question but that this is the coming form of handling live stock from the farms thruout the northwest, and it is safe to say that it will do as much in improving the quality of livestock grown thruout the central west as any movement that has been started along this line.

TELLS A GOOD SILO STORY By T. E. Hayes, of Ellingson, in Adams County Record

T. E. Hayes, of Ellingson, has the distinction of owning the first silo to be built in this section. And incidentally he thinks there is nothing like a silo and that no farmer can get along without one at the low cost at which one can be built. Mr. Hayes is backed up in this belief by the best authorities of agriculture in the northwest, including the instructors in all the leading agricultural colleges in this territory.

Mr. Hayes' silo cost him \$9 and while it is small, nevertheless it holds eight tons and eight tons of concentrated fodder is a pretty good thing to have around in these days of hay and feed troubles. The silo was built from six-inch flooring fastening together with wire like a well curbing. Hayes did the work himself.

He filled it with corn fodder and Russian thistles early in the fall and he says that the mixture after being silo cured is ideal feed for stock.

Just to show that this is true he cites the fact that one of his cows that had been milking since last June is giving as much and as rich milk as she did in June. He also states that all his stock will leave shorts or any other kind of grain for the ensilage. He is thoroly convinced that every farmer should have a silo and he intends next year to build one much larger than the one he has now so that he can store away fodder enough to last him all winter.

Mr. Hayes keeps three cows, or to be more exact, three cows keep Mr. Hayes—and all the rest of Mr. Hayes' family for that matter. These cows furnish the living for the family, and next year Mr. Hayes says he is going to have a few hogs to help swell the proceeds of the farm so that regardless of crop conditions he will have nothing to worry about. Next year also, he expects to try a small piece of alfalfa. Needless to say, Mr. Hayes has no notion of leaving the Hettinger country and we predict that he will never be compelled to do so.

TO WOOL GROWERS AND DEALERS Boston Wool Trade Association

The competition of foreign wool with American grown is increasing each year and as we are all interested in home industries and want to make them success-

WILD ROSE, Yorkshires. Several choice boar pigs for sale. A. R. Sherritt, Blanchard, N. D.



Purebred Registered
HOLSTEIN CATTLE
The Greatest Dairy Breed
Send for FREE Illustrated Book
Holstein-Friesian Asso., Box 135 Brattleboro, Vt

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Small advertisements will be classified under appropriate headings at the low price of one cent a word for each insertion. Cash must accompany all orders. Each initial or number must count as one word. TRY IT HERE.

LIVE STOCK

HORSES

FOR SALE

Percheron, Belgian and Shire horses
J. W. & F. T. PETERSON, Litchfield, Minn.

MEADOW LAWN FARM has for sale prize-winning Young Percheron Stallions, and Shorthorn Bulls bred hornless.

Our large herd contains many of the finest individuals from the east. Prices right with terms to suit purchaser.

Our motto: The best is none too good.

A. H. WHITE, Kramer, N. D.

CATTLE

North Branch Stock Farm. High class Shorthorns. Herd, bull, Supreme Judge 177722—pure Scotch, John Donnelly, Grafton, N. D.

FOR SALE

GALLOWAY CATTLE
J. W. & F. T. PETERSON, Litchfield, Minn.

SWINE

POLAND CHINA PIGS, also Shropshire sheep. Seed grain. GEO. N. SMITH, Amentia, N. D.

EGGS AND POULTRY

EGGS FOR HATCHING. Express prepaid \$2 per 15, from pure bred Golden Wyandottes and White Plymouth Rocks (Fishels strain.) Choice stock for sale. Send for Catalog. C. H. McGEE, Oriska, N. D.

MISCELLANEOUS

Envilla Stock Farm, Cogswell N. D. will quote you special prices on Angus Cattle, Shetland Ponies, Duroc Jersey Hogs, Wolfand Fox Hounds, Pure Bred Poultry, Pet Stock. Write them.

FOR SALE One of the finest and best improved farms in this county, 3 1/2 miles from Bowbells, part cash, worth \$5,000, for \$3,900. H. L. Lyon, Bowbells, N. D.

THE MOUSE RIVER LAND AND LOAN COMPANY AND THE MOHALL STATE BANK

At Mohall, Renville County, North Dakota, have a large list of farm lands for sale, and terms and prices are better than in any other part of North Dakota. They would be glad to have you write them for prices and terms. Our slogan is, "Own your own home in the Mouse River Loop."

FOR SALE: Registered Jerseys. Bull calves and one mature Bull at reasonable prices. W. G. Weeks, Backoo, N. Dak.

RED-POLLED AND GALLOWAYS

Shropshire Bucks

J. S. BIXBY, - - LISBON, N. D.

WANTED—Young Men to take the Railway Mail Clerk examination called for the Dakotas; salary \$900, work half time, common school education required. Passing means appointment. American Institute, Dept.—68-Dayton, Ohio.

FOR SALE. Creamery in first class condition at a bargain at Crystal, N. D. For further information write to J. S. GESTSON, Sec. CRYSTAL, N. D.

FARMS WANTED

TO FARM OWNERS: Our plan puts you into communication with buyers at low cost; write for particulars.

Co-operative Advertising Company
Fergus Falls, Minn.

A BARGAIN FARM. 200 acres 9 miles from Eldon Miller Co., Mo., a division point on Rock Island P. R.; 125 acres in cultivation, 100 in bottom; no buildings, good orchard, fine water, well fenced, 30 acres meadow. \$20 per acre. Other good farms for sale.
Goodrich Realty Co., Eldon, Mo.

THE ENVILLA STOCK FARM

COGSWELL, NORTH DAKOTA

SHETLAND PONIES. Your own price.

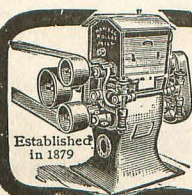
REGISTERED ANGUS CATTLE. Must be sold.

WOLF AND FOX HOUNDS that will catch and kill. Fine pups \$5.00 each

PET STOCK OF ALL KINDS. PURE BRED POULTRY, all varieties.

We can please you both in Quality and Price

COGSWELL, N. D.



ROLLER FEED MILLS

The only scientific and up-to-date method of grinding feed. Burr and stone mills have had their day. At present cost of land and labor you can't afford to feed whole grain—one-half of it properly ground by our roller process has equal value. Our mills have great capacity—require little power—last a life-time. Built in 13 sizes to suit any power. Write for catalog D 6

R. R. HOWELL & CO., Minneapolis, Minn.

ful and profitable, any move in that direction should have mutual support. There is a need in this country for certain kinds of foreign wool whose importation is not affected by duty or domestic supply but barring these the greatest competition is for the same grades that are raised east of the Mississippi River and in Iowa, Minnesota and Missouri. Only the best is imported but it is not so much any special characteristic of breeding or peculiarity of fiber that gives it preference as it is the manner of preparation for market. Manufacturers now-a-days want wool for specific purposes. They do not make goods from what they happen to get. Foreign wool comes here graded as to quality, each fleece by itself, free of tags and skirts, practically free of vegetable matter and seldom tied. Against this the domestic grower offers his product often thrown together any old way, tags usually included, sometimes bits of black, dead and cotted, more or less chaff and burrs and the whole thing surrounded with a large quantity of so called "wool twine." This list looks large but it sifts down to two main subjects: care in bundling and honesty in the contents. The net cost of proper preparation is small. The use of sisal twine was willingly stopped by growers some two years ago and resulted in winning back mills that previously had refused to buy because of its use. More recently, however, manufacturers of twine have been putting out a commodity known as "wool twine" which is not at all satisfactory. It is so loose and rough in its formation that many of the fibers cling to the wool and cause defects in the goods. Besides it is unnecessarily heavy in weight. We are informed that to get the proper article in hand it is necessary to post the local supply houses in season in order that they may place their orders with the manufacturers of twine early. We have made a canvass of the manufacturers to see what will prove satisfactory and we wish you to use your efforts in not only notifying the farmers but also the dealers of twine of the correct commodity. Any hard glazed twine not exceeding one-eighth inch in diameter is suitable. There is manufactured, however, in large quantities and readily available, what is known to the twine trade as "India" three ply No. four and one-half size. The wholesale price at this time is only two cents per pound more than the poorer quality of so called "wool twine" but as a pound contains nearly double the yardage the India will prove cheaper in the end.

The matter of including tags and other foreign matter is covered by state laws. The neglect of enforcement has brought about its own punishment. Worsted manufacturers cannot use tags. If included in fleeces they must either re-sell them or stop buying fleeces; many prefer to cut out fleeces. Of course tags will not

ST. PAUL UNION STOCKYARDS CO., SOUTH ST. PAUL, MINN.

REPORT FOR DECEMBER 1911

Comparison of Receipts and Shipments of Livestock

Railroads	Cattle	Receipts				Total Cars
		Calves	Hogs	Sheep	Horses	
C. R. I. & P.....	433	82	2151	8	.....	47
C. G. W.....	851	177	7187	862	.....	135
C. M. & St. P.	2620	636	16908	1708	27	329
M. & St. L.....	1521	589	13412	1333	1	241
C., St. P. M. & O..	2421	540	30924	3415	141	513
C. B. & Q.	244	34	3189	1741	.....	59
M. St. P. & S. S. M.	2413	878	7769	2987	.....	217
Gt. Nor.....	3948	1633	16530	9821	21	435
Nor. Pac.	2187	356	3732	5579	.....	159
St. P. B. & T.....	.....	.....	.....	.....	.....	.....
Driven In.....	728	123	412	262	.....	.....
Total.....	17366	5048	102214	27716	190	2135
Increase.....	.....	513	.....	2989	7	.....
Decrease.....	1582	.....	186	.....	.....	54
Jan. 1 to date....	412490	126147	910733	712126	7709	32123
Increase.....	.....	4203	74847	.....	2227	.....
Decrease.....	69232	.....	.....	152685	.....	2157
Average Wts.....	759	151	208	91	.....	.....
Railroads	Cattle	Shipments				Total Cars
		Calves	Hogs	Sheep	Horses	
C. R. I. & P.....	1132	4	.....	474	.....	36
C. G. W.....	1183	58	104	2420	5	46
C. M. & St. P.	1588	329	17576	1762	36	218
M. & St. L.....	674	10	.....	.....	.....	22
C. St. P. M. & O..	1617	397	7344	3419	76	138
C. B. & Q.....	892	33	.....	463	4	34
M. St. P. & S. S. M.	623	60	81	1393	.....	30
Gt. Nor.....	308	12	.....	1427	10	21
Nor. Pac.....	416	13	.....	674	5	21
St. P. B. & T.....	.....	.....	.....	.....	.....	.....
Driven Out.....	626	353	147	95	32	.....
Total.....	9059	1269	25252	12127	168	566
Increase.....	.....	186	.....	.....	3	.....
Decrease.....	676	.....	3094	2126	.....	80
Jan. 1 to date....	282220	36132	243606	541551	7637	14342
Increase.....	.....	2577	49757	.....	1817	.....
Decrease.....	53628	.....	.....	146989	.....	2454

SEED CORN

Our stock was gathered early, is kiln dried and has been thoroughly selected, graded and tested.
Heavy demand—limited supply, so order early if you want GENUINE NORTH DAKOTA SEED CORN,

Alfalfa, Clover, Timothy

Don't delay renewing your pastures this year with our seeds which are unexcelled in purity, vitality or productiveness. Our 1912 Catalog is free—send for one.

FARGO SEED HOUSE

Fargo,

North Dakota

Subscribers REMEMBER to Mention

THE NORTH DAKOTA FARMER

When Writing Advertisers

bring as much by themselves as when hidden in the fleeces but the disrepute fleeces have fallen into because of the fraud has cost growers more than the few cents when taken out.

A RARE CHANCE

I have a house at Ellendale, N. D. which I wish to sell or trade for land. It is within two blocks of the Normal-Industrial School; six rooms; two stories; two bed-rooms upstairs; large living and dining room; fireplace in dining room; good large basement; wired for electric light; heated by hot water with a steel boiler of the locomotive type; bath room and plumbing all complete; practically new; and beyond doubt the best location in the town. Southeast corner front; cement sidewalks on either side; lot 125 ft. front; buckthorn hedge; garden; driveway with trees; young fruit, etc. An ideal location for a man who wants to educate his children. Under ordinary conditions I would not want to take much less than \$5000 for it, but I will sell it now at a bargain or trade it for a first-class quarter of land. Only All land considered.

Address: W. M. KERN,
Ingleside, Nebraska.

NEED FOR PLENTY OF NESTS

An insufficient number of nests is often the cause of many of the dirty eggs found. Eggs are laid on the ground and around the hay and straw stacks, and becoming stained, are classed as "dirties." Again when too many eggs are allowed to remain in a nest some are broken and many of the others become smeared with broken yolks. This condition is often brought about by allowing the broody hens to use the same nests with the layers. On a farm where one nest to every four hens is provided and the nests are kept clean and well bedded, it is found that very few dirty eggs are produced.

North Dakota Farmer: Fifty Cents a year; 3 yrs., \$1.00. Agents wanted.

Are you boosting the North Dakota Farmer? One year, 50 cents; three years, \$1.00.

S. C. Buff Orpington S. C. Black Orpington

M. Bronze Turkeys, M. Pekins Ducks and Indian Runner Ducks.

"THE BEST IN THE WEST"

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BARRED ROCK

Choice Stock and Fair Treatment.

ROBERT B. REED

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Amenia, N. D.

BUFF WYANDOTTE EGGS for hatching. Fowls for sale. Also twelve breeds of Fancy Pigeons. M. B. NOBLE, Hillsboro, N. Dak.

BARRED ROCKS

Bred to Lay and Win

Won all first at Fargo, N. D. State Show, 1906, 1907, 1908, 1909 and 1911. Stock at reasonable prices

PETERSON BROS.

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HAUSMANN POULTRY FARM

Breeders of W. Wyandottes and S. C. W. Leghorns
Hillsboro, - North Dakota

PURE WHITE WYANDOTTE Eggs for hatching \$1.50 for 15, \$7.00 for 100, \$14.00 for 220.
E. A. Tow, Lisbon, N. Dak.

S. C. W. LEGHORNS

Prize winners' stock for sale. Eggs a specialty. GEO. A. FOWLER,
Box 486, Casselton, N. D.

SILVER-LACED WYANDOTTES

Thoroughbred, Wide Open-laced, Big Utility Birds. Bred for Business. Eggs for Hatching: 15, \$1.50; 30, \$2.75; 50, \$4.00; 100, \$7.00. Cockerels, \$2.00, each.

Anthony Elm,
Lansford, N. Dak.

FOR SALE. Fine Mammoth Bronze Turkeys: Toms, \$4.00; Hens, \$3.00. Satisfaction guaranteed
R. C. Palfrey, Hope, N. D.

WHITE WYANDOTTE eggs for sale from good stock.

M. C. JAMES, Valley City, N. D.

MAKE YOUR HENS LAY MORE EGGS

I have a method that will make your hens lay every day; it never fails. Write for it. 2c stamp.
MRS. B. F. WILCOXON,
Hillsdale, Wyo., Dept. 8

WHITE AND BUFF WYANDOTTES that always win. Choice stock for sale. EGGS for hatching from pens of well-selected stock, sure to produce winners. Prices reasonable. Satisfaction absolutely guaranteed. Write me your wants.
L. O. CUMMINS, Casselton, North Dakota

FOR SALE. M. B. Turkey Toms, raised from our Diploma Stock, \$5.00 and up; also Eggs from 26 varieties poultry. Catalog free.
L. GULDEN, Osakis, Minn.

Rose Comb Black Minorcas

Eggs for sale, \$2 for 15 eggs.

C. WYSH,

CASSELTON, N. D.



55 Breeds

Pure - bred Chickens, Ducks,

Geese, Turkeys, also Incubators, Supplise, and Collie Dogs. Send 4c for large Poultry book, Incubator Catalog, and Price list.
H. H. HINKER,
Box 30, Mankato, Minn.

ST. PAUL UNION STOCKYARDS CO. REPORT FOR DECEMBER, 1911

Comparison of the Origin and Disposition of Livestock

Origin of Livestock Received

States	Cattle	Calves	Hogs	Sheep	Horses	Total Cars
Minnesota.....	11467	4328	80658	10221	43	1532
Wisconsin.....	1306	345	9985	2545	14	200
Iowa.....	120	1	521	.....	35	14
Far South.....	.....	.....	.....	516	18	3
So. Dakota.....	957	105	6861	785	77	129
No. Dakota.....	2972	214	4189	5026	3	195
Montana.....	492	45	.....	8623	.....	59
Far West-----	.....	.....	.....	.....	.....	.....
Manitoba & N. W. T.....	.....	.....	.....	.....	.....	.....
Far East.....	.....	.....	.....	.....	.....	.....
Returned.....	52	10	.....	.....	.....	3
Totals.....	17366	5048	102214	27716	190	2135

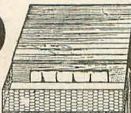
Disposition of Livestock

S. St. Paul P'k'rA...	9090	3701	76858	14868	.....	.....
City & State Butch	1198	270	1812	359	.....	62
Outside Packers...	254	388	23303	3620	.....	220
Minnesota.....	2145	354	.....	2014	67	74
Wisconsin.....	680	116	.....	252	96	28
Iowa.....	2308	17	137	379	5	71
Nebraska.....	60	.....	.....	.....	.....	2
Kansas & Missouri	132	.....	.....	.....	.....	3
So. Dakota.....	266	.....	.....	.....	.....	8
No. Dakota.....	236	8	.....	115	.....	8
Montana & West..	57	.....	.....	.....	.....	2
Far South.....	64	.....	.....	.....	.....	2
Manitoba & N. W. T.	233	6	.....	423	.....	10
Mich. & E. Can. .	.....	.....	.....	.....	.....	.....
Chicago.....	651	83	.....	4965	.....	50
Ills (ex Chicago) ..	590	17	.....	.....	.....	20
Eastern Points....	133	4
Returned.....	52	10	2
Totals.....	9059	1269	25252	12127	168	566



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BETTER FARMING ASSOCIATION**W. C. Palmer**

"Better Farming Association" is the new name adopted by the director of the One Hundred Dollar an Acre Club. This new name is expressive of the objects of the association.

Mr. Thos. Cooper, Secretary and Director, also reports that the following line of, or, has been decided upon at the meeting held on Thursday, Dec. 21st. All the phases of the work will be in cooperation with farmers, the farmer to furnish the fields, labor, stock or whatever the enterprise may be, the association to furnish expert advice.

Demonstration Flats and Fields

This work will be carried out on individual fields and will consist of demonstrations in growing such crops, as wheat, flax, corn, alfalfa, clover, winter wheat, etc. These may run for a year or longer. Demonstrations of method of soil improvement thru crop rotation and tillage will also be carried on. These to run for at least a period of five years.

Demonstration Farms

The plan here is to take in the whole farm. As this will require considerable work it will not be possible to take in more than fifteen or twenty the first year. The requirements are: (1) Farm so located as to be easy of access. (2) Farmer must operate his own farm. (3) Agree to operate farm for a period of five years. (4) Farm typical of certain well defined soil types and areas. (5) Farm, either already stocked, or farmer prepared to stock it. (6) Association will give expert service in assisting to solve all farm and stock problems. This offers a splendid opportunity to the farmer who is desirous of increasing the profits of this farm and of conducting an object lesson for his community.

Livestock

Livestock being the foundation of successful agriculture, the association is prepared to assist farmers in any of the problems connected with stock, as care, feeding, selection, breeding, etc.

Test and Feeding Association

Certain men will devote their work to testing, planning rations, etc., in dairy districts, somewhat on the same plan as is being done now at New Salem. The farmer will be required to provide himself with scales and with report sheets. The reports and data will be made up at the general office.

Advisory Farm Management

Any farmer in a district who wants information as to improving his farm can consult the field men. They will be prepared to furnish information as to farm plans, livestock, building, tree or fruit-growing, gardening, drainage, rotation, tillage, etc.

North Dakota Farmer: Fifty Cents a year; 3 yrs., \$1.00. Agents wanted.

Poultry Department**Geo. Hausmann, Hillsboro, N. D.****PLENTY OF ROOM FOR POULTRY RAISERS IN NORTH DAKOTA****By C. D. Perkins**

Altho we are told that the poultry business has doubled in North Dakota in the past two years, we still find it almost impossible to secure fresh eggs for our breakfast and Sunday chicken has too often been in storage a little too long.

Eggs will always be higher in the winter than during the warm months, and rightly so for it costs more, both in feed and trouble, to produce them; but eggs in paying quantities, can be secured by those who will give their flocks the necessary care and attention during the cold months. When we begin to see the possibilities of our birds and begin to treat them as we do our dairy herds or other livestock, then those possibilities will begin to be realized and well-housed, well cared for flocks will be as common in North Dakota as in the other states where the poultry is on the same basis as the other farm live stock.

Birds to Mature Earlier

North Dakota conditions require birds that will mature very quickly and that do not stop laying as soon as a touch of cold weather arrives. There are many breeds that answer these requirements and we can choose our fancy.

Egg and poultry prices are somewhat higher here than in the southern and south central states and lower than in the larger cities east of us. Difference in express rates has something to do with this and local demand governs the price to some extent, but a better price could undoubtedly be obtained by more systematic marketing. The entire surplus of many farmers' flocks is put on the market at about the same time in the fall, causing the price to drop way below figures which allow even a small profit to the producer. The birds are put into storage and the consumer wonders why chicken doesn't taste as good as it used to. We have found it impossible at times in some cities of the state to purchase a fresh chicken or a fresh egg. There are difficulties in marketing poultry in the winter but the better price would seem to make the extra trouble worth while.

Another Paying Branch

The raising of turkeys, ducks and geese is a branch of the business which pays well here. The price of these does not fluctuate as much as that of chickens and there seems to be no difficulty in getting a fair price for all you can raise.

The poultry business as a whole is in its infancy and the demand con-

tinues to increase as the population grows. Small poultry plants and backyard flocks will supply a small fraction of the demand but the real bulk will be raised upon farms or upon plants large enough to raise part of the seed. North Dakota will be exporting thousands of cases of eggs in a few years where now thousands are shipped into the state.

The value of a poultry show as an aid to the development of the industry cannot be overestimated. Here the best of the feathered world is seen on dress parade and the visitor can see, as he goes down the aisles, a beautifully tinted egg in the coup of a blue ribbon pullet just to prove that beauty and utility go hand in hand. It is at the show perhaps, that one realizes for the first time the fact that it costs no more, in feed or in trouble, to raise a thoroughbred than a scrub and that the pure-bred flock is more valuable, both in uniformity of product and appearance than a mixed flock, as well as of much greater value for breeding purposes.

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Charles F. Mayo **Tower City, N. D.**

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O. A. Barton, Valley City, N. D.

Home Department

CHURCH AS A FACTOR IN COUNTRY LIFE

By Rev. J. M. Walters, at the Tri-State Convention

The country church has not kept pace with newer ideas and changing conditions. We have been content to work in the same way and in the same sort of buildings that our fathers did fifty years ago. In many a rural community the church is the most neglected of buildings. A leading daily paper of Columbus, Ohio, says: 'Statistics show that there are over 300 deserted and unused churches in the state, fifty-five townships report no church members under 21 years of age, and 130 townships report no members under 15 years of age. Weeds instead of flowers and shrubs are to be found in the church yards to many young people who are without instead of within the folds of the Sunday school and the church.' A. P. Sandles, secretary of the state board of agriculture, has written a letter to the ministers of Ohio asking 'What is the reason?'

What is true of Ohio is also true of other places, and the reasons that we give for these conditions are not reasons that we will dare to present to our Lord when we render to Him an account of our stewardship. We are told that the people who supported the church in the other days have died or moved away, people of other nationalities and faiths have moved in. We are also told that the children of those men and women who built the church have no interest therein, and spend their Sabbaths in seeking their pleasure in sports of various kinds. To the first excuse let us reply that people of other nationalities are folks, and as folks, need the gospel. To the second let us ask: If we have not kept in the church the second and third generation, who is to blame?

There are a few considerations which, it seems to me, we ought to emphasize for the sake of the country church of tomorrow.

1. We ought to be content to have fewer churches and more church.

Our conceit which leads us to declare that a town needs our type of preaching or faith has been the devil's best tool for making the church look cheap in the eyes of the world. If we had in these villages and country communities one church building modern in equipment, instead of a number of struggling societies, if we could

offer to our young men who are thinking of the ministry as their life work a real man's job instead of asking him to drum up ice cream socials in order to get his paltry pay, then might we expect to put strongest men in the country churches, men who are alive

to every situation, men who would see in every movement for the mental, moral or physical betterment of men a part of the work of our Lord. It is but a few weeks ago that a young man who has a church in this state said to me: 'I do not feel that I am doing a man's job; one man could do the work out there and one man could live nicely on what both of us get.' I want to say to you laymen, to you men from the country that you must take a hand in this. Many of our state workers are still filled with the idea that success consists in reporting

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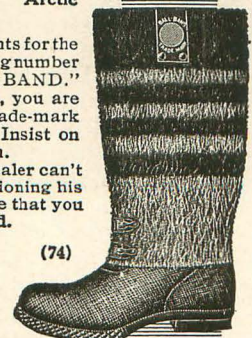
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a number of churches organized. Our future success consists in concentration, and this we will find the success of the bigger and better churches, and no dead churches, for big, live churches do not die.

2. The rural church has in many places allowed itself to become narrow and exclusive in its appeal, and the result has been a loss of influence. As a church man I long to see the church direct and lead in all those movements that might broaden the vision of the people and give new inspirations to our growing youth.

I count it one of the shames upon us that the church in the country as well as in the city is closed so often to everything but what we are pleased to call religious services. If social centers are good for the city, why not for the country? What better place for that social center than the church? In our religious meetings we make a great deal of the ability of the christian to be able to give a reason for the hope that is in him. May we not be doing something great not only for the individual but also for the church and the state if we do something to train our young people to express themselves on topics of general interest and public welfare? Why not have debates in the church on the mighty questions that are ever thrusting themselves before us in this great country. There is no reason in the world why some lawyer from the city should not go out to talk to our farmer folk about the issues. Let the questions be debated by the young men themselves, and the very fact that they have made sufficient study of the question to speak on it will give them a broader view and prevent them from being deceived by the arguments of the professional politician. Is the matter of Sunday sport a burning question?

The church can do one of two things. The faithful few can meet and hear a burning sermon on the folly of turning the Sabbath day into a day of sport, and they can moan the departure of devotion to God. Or they can come together and discuss the question of the church having a ball club of its own; the minister can be anything in the club he desires, and take any part in the game but that of umpire, when the team comes over from Jonesville. Then let the minister urge upon the farmers the advisability of giving Saturday afternoon to the boys for the games. The farmer boy loves the play as well as the city boy, but the fact will ever remain that a desecrated Sabbath will soon mean a lowered moral tone, and to lose our convictions as to right and wrong with reference to the Sabbath will end in a loss of conviction as to the other commandments, and to lose convictions here is worse than crop failure.

In some of the hours of my wak-

ing dreams, I have held convers with the spirit of the future, and have asked her to show me some of the things that are and the things that are to be. And she has shown me that the curse of the world is the going of the people from the land to where they swelter in mill and factory and herd like cattle in the poor places they call homes. She has shown me that the blackest crime of the rich of the world was to use the land for park and hunting preserve, while people have gone hungry for bread. She has shown me that one of the greatest needs of any people is the home. She has shown me that the enemies of the home altho they be legion, may all be baptized with the ugly name of Greed. Greed that builds tenements that are fire traps, and breeders of disease. Greed that works men seven days in the week. Greed that foists the saloon upon us to destroy our sons and degrade our daughters. Greed that manifests itself in the politician who shouts for old glory, and proves a traitor to the flag by buying votes or trying to influence legislation in his own behalf.

And with the spirit of the future I looked into the unborn years and saw a great state. It did not make boasts of great cities, but it had thousands of homes surrounded by smiling fields. It had school houses out in the open places, as modern as are to be found in the cities. But chief among the institutions of the future was one from which came the influences that made for good schools, that smote greed and drove to oblivion the vote buyer and the vote seller, the friend of booze and he that would commercialize sport, thus preying on the desire of folks for amusement. And that state was our state, and I saw that there were others like it in this great and splendid nation, and that central source of social, moral and religious influence was the church, and listening for a while there came to me from the open door, the voice of prayer and the sound of song.

"God bless our native land,
Firm may she ever stand,
Thru storm and night,
When the wild tempests rave,
Ruler of wind and wave,
Do thou our country save,
By thy great might."

COURSE FOR RURAL TEACHERS

Detailed outlines of a normal course for rural school teachers in nature study, elementary agriculture, sanitary science, and applied chemistry are contained in a monograph entitled "A Course of Study for the Preparation of Rural School Teachers," which the United States Bureau of Education has just published for free distribution. The authors are Messrs. Fred Mutchler and W. J. Craig, of the

Western Kentucky State Normal School. The following paragraphs consist of brief excerpts from the book.

"The rural school has not the influence

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that it should have. One of the chief reasons lies in the fact that the course of study is ill-adapted to rural life in all its relations. We are united in believing that a school should train its pupils for life and its work while these pupils are living and working. The course of study taught in the rural school today is entirely too much like the course that is taught in the city school. The country school will not reach the position of efficiency that belongs to it until a distinctive training is required of its teachers.

"A State normal school should prepare a large number of teachers to go out into the rural communities, there to be potent factors in bringing about the best rural life. The rural child is entitled to a course of study and to a course of instruction that will dignify and enrich his life and make life for him in the rural environment, should he choose to remain there not simply tolerable, but glorious. It is possible and right, and indeed a duty, to dignify rural life and to save to it and its interests the best blood of the country.

"To prepare teachers who can meet this demand, the following course of study and training is proposed: The first year is largely given to distinctively rural problems and interests; the two succeeding years turn more toward general scholarship, in order that those taking the entire course may be able not only to teach rural schools but to enter larger fields of usefulness."

After indicating the cultural branches which should be possessed by the rural school-teacher, the authors continue:

"It is now quite generally conceded that the following subjects are necessary for the proper training of rural school teachers: Nature study, elementary principles of practical agriculture, sanitary science and hygiene, domestic economy, and practical principles and problems in elementary chemistry and physics as applied in the study of these subjects. The formal training of most country boys and girls ends with the rural school course. A fundamental knowledge of the foregoing subjects is certainly a minimum to require of the teacher who trains them for the lives that they must lead."

The outlines of the special courses named are then discussed in detail, accompanied with detailed outlines of the ground to be covered and the manner in which the several courses should be treated.

"A Course of Study for the Preparation of Rural School Teachers" Will be sent free upon request to the United States Bureau of Education, Washington, D. C.

PURE FOOD INSPECTION

The inspection force of the Bureau of Chemistry, Department of Agriculture, collected 9,500 official samples of foods and

drugs during the past fiscal year, of which 3,280 interstate samples were found to be legal, and 3,113 misbranded or adulterated, while 503 check analyses were made to insure that correct results were obtained before recommending action on the samples. In connection with this work 5,370 hearings were held, less than half being by correspondence. There were 96,129 floor inspections made of imported products, of which over half were made at New York. A total of 9,698 imported foods and drugs were analyzed at these ports, of which number 3,085 were adjudged adulterated or misbranded and 1,268 were released without prejudice to future shipments. The miscellaneous samples examined at the branches aggregated 1,406, making a total of 18,000 samples.

THE USE OF PAINT ON THE FARM (Continued)

Drying of Paints

Water paints such as whitewash and calcimine dry in the ordinary sense; that is, by evaporation of the liquid, which in the case of the two paints mentioned is water. The drying of oil paints, however, is quite different, and in order to understand this attention must be drawn to certain peculiarities of the so-called drying oils. Suppose four plates of glass are coated, one with a thin film of water, another with gasoline, another with a heavy mineral oil, and another with linseed oil, and all four plates are exposed to the air for several days. The water and gasoline will evaporate and leave the plates dry and practically in the condition in which they were before applying the liquid. The plate covered with the heavy mineral oil will be found to be greasy, while the plate covered with linseed oil will also have a coating on it, but this coat will first become tacky and finally set to a hard, varnish-like film. If this experiment is tried with other vegetable oils, such as olive oil, it will be found that some of them behave very much like the mineral oils; that is, there is very slight tendency toward the formation of a coating. Other oils, such as corn and soy bean, will behave in a manner similar to the linseed oil; that is, there will be the formation of a more or less tacky mass, with perhaps the final formation of a varnish-like material. None of the other common oils, however, will form the varnish-like coating so rapidly, nor will the coating be so hard as in the case of linseed oil.

Oils which behave like linseed oil are called drying oils. It will be seen from this illustration, however, that the term "drying" as applied to oil is not similar to the drying which takes place on the exposure of a material wet with water to the dry air. The drying of a substance wet with water is really the removal of the

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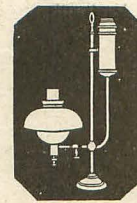
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water by evaporation. The drying of a drying oil is a change taking place in the liquid. This change is accompanied by an absorption of oxygen from the air, and the drying does not take place in the absence of oxygen. It is hindered by moisture and hastened by sunlight.

The formation of this varnish-like film by the so-called drying of linseed oil is an exceedingly important operation in the drying of oil paints. Certain substances, compounds of lead and manganese, if

tion of a drier. Some pigments, however, have the property of hastening the drying of linseed oil, and when they are used (red lead, for example) it is unnecessary to add any other drier. The varnish-like film left by linseed oil is for practical purposes insoluble in water. It is not, however, impervious to water. If a bright piece of iron covered with a coating of linseed oil, and afterwards thoroly dried, is exposed to moisture it will be found that while the iron will not rust so fast as un-

that moisture passes thru this film with comparative ease. But, if an oil paint is employed—that is, a mixture of pigment and linseed oil—it will be found that the water does not penetrate thru the film so rapidly as it does thru the linseed-oil film alone. Also the paint film is more resistant to mechanical abrasion. While there is some difference of opinion among experts as to the amount of pigment which should be used, it is generally considered that the greater the amount the more resistant the paint film is, provided all the particles of pigment are thoroly covered with the oil. It would appear, therefore, that a film of oil, while it may seem to be homogeneous even if examined under a high-power microscope, is really porous, and by mixture of the oil with the pigment the pores are more or less completely filled, thus making a more impervious film.

In addition to the linseed oil and drier, paints frequently contain volatile substances, such as turpentine and benzine. The addition of these is largely for the purpose of thinning the paint to a better working consistency, so that it can be spread in thin layers more easily. These volatile substances evaporate almost completely and do not remain behind in the dried film. The only substance remaining which binds the solid particle of the pigment together is the oil.

Preparation of Surfaces for Painting

All surface should be clean and as dry as possible before the application of an oil paint. Much new wood is very difficult to paint. The resins in such woods as yellow pine and spruce tend to destroy any paint that is laid over them. When



The Inventive Genius of an Aneta Boy Asserts Itself

dissolved in the oil, hasten drying. Boiled oil which contains compounds of lead or manganese, or both, will dry more rapidly than raw linseed oil. Instead of using boiled oil, however, the drying of the oil in paints is generally hastened by the addition of liquids known as driers. These liquids are composed of compounds of lead and manganese generally thinned with either turpentine or benzine, and are known as japan or japan driers. As before stated, while the use of a drier is necessary in a great many paints, the amount used should be small. It is a rather astonishing fact that many driers, if used in small proportions, will very materially hasten the drying of the linseed oil; whereas if a large amount of drier is added, the drying of the oil is retarded. There is another objection to the use of a large amount of drier, and that is that the film produced is not so durable as one produced by raw linseed oil alone or by the use of a raw oil containing the proper amount of drier. There are a number of other oils which have the property of drying like linseed oil, but none of them is the equal of linseed oil for a paint vehicle.

Bearing in mind these facts, it is seen that an oil paint would consist of the pigment mixed with a drying oil, preferably linseed oil, and generally with the addi-

tion of a drier. Some pigments, however, have the property of hastening the drying of linseed oil, and when they are used (red lead, for example) it is unnecessary to add any other drier. The varnish-like film left by linseed oil is for practical purposes insoluble in water. It is not, however, impervious to water. If a bright piece of iron covered with a coating of linseed oil, and afterwards thoroly dried, is exposed to moisture it will be found that while the iron will not rust so fast as un-

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possible, it is well to allow a new house to stand unpainted for at least six months or even a year after the woodwork has been completed. By this exposure to the weather the resins are brought to the surface and are either washed away or hardened, and the resulting wood surface is in much better condition for painting than is a new structure. An unpainted house, however, is an unsightly object, and it is often desired to paint a new house at once. Painters adopt several methods of treating new wood; probably the one most universally used is to coat all knots and other places where resin appears with shellac varnish, a solution of gum shellac in alcohol. Another plan is to mix with the priming coat of paint a small amount of benzol (coal-tar naphtha), which is claimed by some excellent authorities on painting to dissolve the surface layer of

A Ward County

Boy
and His
Cornfield



resins and allow the paint pigment to penetrate into the fibers of the wood, preventing the final forcing of the resins to the surface. After applying the priming coat, all nail holes and cracks should be well filled with putty pressed in hard. Filling in with putty should not be attempted before the priming coat is applied, as it is not likely to stick as well.

In painting iron surfaces all rust and grease should be carefully removed, scraping down to bright metal with wire brushes or sandpaper and finally dusting off all adhering particles.

(To be Continued)

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Seasonable Receipts

Creamed Onions

Boil small onions in boiling salted water until done, and drain. Make a sauce of 2 tablespoonfuls butter melted; stir in 2 tablespoonfuls flour; then add slowly 2 cupfuls hot milk, stirring rapidly. Beat until creamy, season a little, then put in onions and heat until nearly boiling and serve at once.

Rye Bread

One sifter rye flour, 3 tablespoonfuls lard, 1 tablespoonful sugar, 1 teaspoonful salt. Pour over all the ingredients boiling hot water to make a stiff dough. When cold enough put in 1 cake of yeast which

milk, 2 cupfuls flaked oats, 1 cupful flour. Bake 40 minutes in moderate oven.

Nut Bread

Four cupfuls flour, one-half cupful sugar, 2 cupfuls milk, 1 cupful chopped walnuts, 1 teaspoonful salt, 4 teaspoonfuls baking powder, 1 egg. Let rise 20 minutes, then bake in moderate oven. This makes 2 loaves. Cut second day.

Peach Tapioca

Soak 1 cupful pearl tapioca in water sufficient to dissolve it; when soft add one-half cupful sugar and a little salt; pour this over one quart can peaches and bake one hour. Serve with whipped cream.

Sliced apples may be substituted.

Batter Pudding

Use any canned fruit or stewed and sweetened evaporated apricots are good; place in pudding-dish and heat; then cover with a batter made of 2 tablespoonfuls sugar, one-half tablespoonful butter, 1 egg, one-half cupful sweet milk, 1 cupful flour into which has been sifted 1 teaspoonful baking powder; bake 20 minutes or one-half hour.

Apple Pancakes

Make a good pancake better, and before frying add one-half cupful finely chopped apples.

Quick Waffles

One-half pint sour milk, one-half pint sour cream, one teaspoonful soda, 2 eggs, 1 tablespoonful sugar, one-half teaspoonful salt, 1 quart flour. Beat all together and bake in well-buttered waffle irons, very hot. Turn the irons once while baking to brown on other side.

Pea Soup

Take one quart of dried peas; wash thoroly and soak over night. In the morning boil peas in water in which they soaked until very soft (about 3 hours). Pass thru a collander, adding the water gradually—which should be about 4 to 5 quarts. Wash one and one-fourth pounds of salt pork and let cook tender in another kettle. When done add to peas with the broth and season to taste.

Oatmeal Bread

One cupful buttermilk, 2 tablespoonfuls melted butter, one fourth cupful sugar, 1 teaspoonful soda dissolved in

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Salmon Croquettes

One can salmon, mince fine; 1 cupful milk, 3 teaspoonfuls flour; cook all together. Let cool, form into balls, dip in cracker crumbs and eggs. Fry in boiling lard.

Roast Veal Liver

Salt and pepper one whole liver; cover top with pieces of bacon fastened on with toothpicks. Roast one hour.

Boiled Beef Tongue

Cover tongue with boiling water and boil slowly 4 hours. After boiling one hour add salt, whole pepper and 3 bay leaves. Let cool in water in which it was boiled.

Creamed Chicken

Boil until tender a young chicken. When cold cut into dice and make the following dressing: 1 pint cream, 1 generous tablespoonful flour, salt and pepper to taste; mix flour smooth with 2 tablespoonfuls butter melted, and stir into the cream. It is best not to add the salt until removed from the fire. This is delicious served in patty shells or toasted bread boxes. A very pleasing change is obtained by adding one can of peas or a few fresh green peas in the summer to the creamed chicken just before serving.

Beef Balls

Chop fine some cold beef and with this mix 1 or 2 well beaten eggs according to quantity of meat. Add a bit of chopped onion and a little melted butter, salt and pepper. Flour your hands and roll the meat into balls and fry in smoking hot fat.

Round Steak with Dressing

One slice round steak cut three-fourths inch thick. Pound well, salt, and pepper then cover with dressing, sew edges together or wrap string around it. Bake in hot oven three-fourths hour, basting with butter.

Dressing: 3 cupfuls bread crumbs or broken pieces of bread, salt, pepper, sage and a little onion juice, 1 cupful milk and 1 egg.

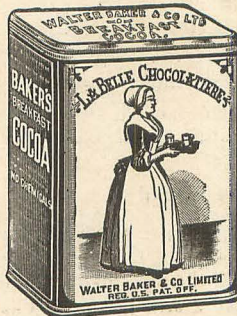
Potatoes Escalloped with Pork and Gravy

Many times you have a small piece of a pork roast left which is not enough to serve by itself. Try this way: Slice raw potatoes as for escalloping and chop or grind the meat. Fill a pan the required size with alternate layers of potato and a sprinkling of meat. Pour over this the meat gravy left or if necessary make some additional so that there is enough to cover the potatoes. Cover with a sprinkling of bread crumbs and bake till potatoes are done.

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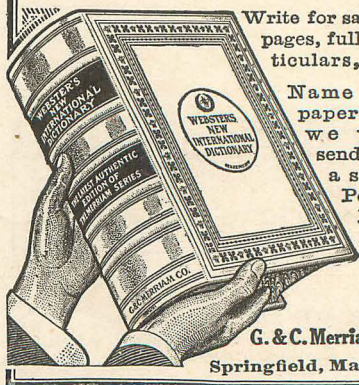
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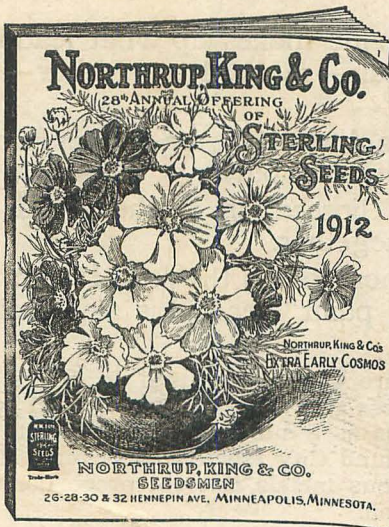
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